DOCUMENT RESUME

ED 054 780 LI 002 999

AUTHOR Swift, D. F.; And Others
TITLE Investigation Into Sociology of Education Abstracts: Volume I, Report on First Stage of Project.
INSTITUTION Oxford Univ. (England).
SPONS AGENCY Office for Scientific and Technical Information, London (England).
PUB DATE Aug 70
NOTE 276p.; (44 References)

EDRS PRICE MF-$0.65 HC-$9.87
DESCRIPTORS *Abstracts; *Educational Sociology; *Foreign Countries; *Information Needs; Information Processing; Information Retrieval; *Information Services; Information Systems; Use Studies
IDENTIFIERS *Current Awaremess Systems; Great Britain

ABSTRACT

The OSTI-SEA (Sociology of Education Abstracts) project was conceived as a result of the awareness that the task of SEA as a service was steadily increasing in complexity and size. A three-year project was initiated to develop a system to meet information needs, patterns of inquiry and preferences as to type of service of its users. The study covered the selection process and present use of the literature, document description which dealt with SEA abstracts, and users and user needs. Suggestions are presented which represent a reasonable compromise between the "best" view of experts and the majority view. SEA is a service for specialists and although there is a feeling of obligation to meet the needs of a wider clientele, the service to specialists is of higher priority. (AB)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED054780

INVESTIGATION INTO

SOCIOLOGY OF EDUCATION ABSTRACTS

Volume I

REPORT ON FIRST STAGE OF PROJECT

Director of Project
Professor D.F. Swift (Open University)

Research Officer
Miss V.A. Winn

Research Secretary
Mrs. P. Jackson

(Oxford University Department of Educational Studies)

LI 002 999

Report submitted to Office for Scientific
and Technical Information.

Oxford
August, 1970

C O N T E N T S

VOLUME I

	page no.
INTRODUCTION	
Genesis of OSTI-SEA project	1
Detailed planning	3
The present SEA service	6
CHAPTER 1 COVERAGE OF SEA	
Background	1.1
Results of analysis of material abstracted in SEA volume 4	1.4
Discipline perspective	1.5
Topic	1.5
Journal coverage	1.7
Balance between books and journals	1.11
Quality	1.12
The selection process	1.14
Background	1.14
Validity of selection	1.16
Reliability of selection decisions	1.26
Comparison of actual inclusion with editorial policy	1.29
SEA coverage in relation to present use of the literature	1.41
SEA and use of the literature in teaching the sociology of education	1.45
SEA and use of the literature in preparation of papers published in scholarly journals	1.47
Availability of material in libraries	1.61
Availability of bibliographical information through bibliographical services other than SEA	1.62
Implications of findings on coverage	1.64
CHAPTER 2 DOCUMENT DESCRIPTION	
Present policy	2.1
Description of abstracts	2.3
Specific characteristics of SEA abstracts	2.6
Emerging patterns	2.15
Treatment	2.15
Discipline orientation	2.19
Form of document	2.22
Special characteristics of SEA abstracts	2.29
Features of content	2.31
Topping and tailing	2.34
'Circumdescription'	2.37
Features of style and presentation	2.39

C O N T E N T S
cont.

page no.

Validity of SEA abstracts 2.41
Reliability of SEA abstracts: journal abstracts 2.44
General aspects of book abstracting 2.44
Two alternatives to abstracts 2.55

Titles as predictors of contents of documents . . . 2.55
'Contents lists' versus abstracts 2.57

Effectiveness of SEA abstracts 2.58

General introductory characterisation 2.60
Statement of nature of indirect relevance 2.61
Abstracts of works of partial relevance 2.62
Layout and tagging 2.62
Style 2.63
Use of tables, diagrams etc. 2.64
Nature and amount of detail 2.65
Comparison with practice of other abstracting services 2.65

CHAPTER 3 USERS AND USER NEEDS

Planning of user studies 3.1

SEA's ethos 3.3

Rationale of studies 3.5

Content of studies 3.7

Present users 3.9

Individual subscribers 3.10
Institutional use 3.11

How SEA is used 3.14

Colleges of Education 3.14
Universities 3.14

For what kinds of use should SEA ultimately attempt to cater? 3.15

Bibliographical 'experience' amongst sociologists of education 3.16
The reference group 3.23
Types of enquiry 3.28

Views on criteria for an improved service 3.34

The general view 3.35
Views of the 'concerned' as to criteria 3.36
SEA criteria in relation to the needs of the discipline 3.37
Intellectual problems 3.38
Appropriateness of existing techniques of information processing 3.45

(1) Subject indexing 3.47
(a) In-house study 3.47
(b) Seminar study of indexes 3.79

C O N T E N T S
cont.

	page no.
(2) Classification	3.93
(a) In-house study	3.93
(i) A general classification scheme	3.93
(ii) An SEA classification scheme . .	3.97
(b) Seminar discussion of classification .	3.101
(3) Form of abstract	3.105
(a) In-house study	3.105
(b) Seminar assessment of different types of abstract	3.105
SEA's future policy	3.120

L I S T O F T A B L E S

CHAPTER 1

page no.

1.1 Numbers of abstracts in SEA vol. 4 according to discipline orientations 1.6
1.2 Coverage in SEA vol. 4 by topic category and discipline orientation 1.8
1.3 "Top" journals as represented by abstracts in Sociology of Education Abstracts over 4 year period 1965-1968 . . . . . 1.9
1.4 Numbers of book and journal abstracts in SEA vol. 4 . . . . . 1.11
1.5 Abstracts in SEA vol. 4 according to length of original document 1.12
1.6 Abstracts in vol. 4 according to type of original document 1.13
1.7 Abstracts in SEA vol. 4 according to treatment . . 1.14
1.8 Agreement amongst panel members in selection of articles from sociological journals 1.18
1.8a Agreement amongst panel members in selection of articles from educational journals 1.18
1.9 Consistency of decisions in book selection 1.27
1.10 Comparison between editor's ex post facto decisions and ultimate publication of book abstracts 1.31
1.11 A comparison between editors' decisions to abstract 1.32
1.12 Comparison of editor's and actual SEA selection of articles from educational journals 1.35
1.13 Extent of agreement between editor's and actual SEA selection of articles from sociological journals covered by SA 1.38
1.14 Factors affecting agreement between editor's and actual SEA selection of articles from sociological journals covered by SA 1.39
1.15 Real disagreement between editor's and actual SEA selection of articles from sociological journals covered by SA 1.40
1.16 Citations (10 and over) to journal articles in SEA-relevant articles in select range of journals 1.50
1.17 Citations (10 and over) to journal articles relating to the sociology of education narrowly defined 1.51
1.18 Citations (10 and over) to journal articles relating to the sociology of education broadly defined 1.52
1.19 % recent citations dated 1966-1968 in each journal cited 10+ times in 1968 . . . . . 1.53

page no.

1.20 % recent citations dated 1966–68 in 1968 source journals 1.54
1.21 Comparison of journals/books cited in 1968 source journals 1.54
1.22 Citations (journals/books) to recent (1966–68) material in 1968 source journals 1.54
1.23 Citations (10 and over) to journal articles in SEA-relevant articles in select range of journals 1.55
1.24 Citations (10 and over) to journal articles relating to the sociology of education broadly defined 1.56
1.25 Citations (10 and over) to journal articles relating to the sociology of education narrowly defined 1.56
1.26 % recent citations dated 1966–68 in each journal cited 10+ times in 1968 . . . . . 1.57
1.27 % recent citations dated 1966–68 in 1968 source journals 1.57
1.28 Comparison of journals/books cited in 1968 source journals 1.58
1.29 Citations (journals/books) to recent (1966–68) material in 1968 source journals 1.58
1.30 Number of journals cited in 1968 source journals according to frequency of citation and inclusion in SEA 1.59
1.31 Recent (1966–68) citations made in 1968 articles narrowly relevant to the sociology of education according to journal and inclusion in SEA . . 1.59
1.32 Alternative sources of information about books abstracted or to be abstracted by SEA 1.64

CHAPTER 2

2.1 Length of SEA abstracts 2.7
2.2 Structure of SEA abstracts 2.9
2.3 Structure of SEA abstracts in relation to length 2.10
2.4 Level of abstraction and degree of generality of SEA abstracts, by issue 2.13
2.5 Level of abstraction and degree of generality of SEA abstracts in relation to length of original 2.14
2.6 Summary of Table 2.5 . . . . . 2.15
2.7 Effect of treatment of subject in original on length of SEA abstract 2.17
2.8 Effect of treatment of subject in original on level of abstraction and degree of generality in SEA abstracts 2.18
2.9 Effect of treatment of subject in original on structure of SEA abstract 2.20
2.10 Effect of discipline orientation on length of SEA abstracts 2.21

L I S T O F T A B L E S
Cont.

page no.

2.11 Effect of discipline orientation on level of abstraction and degree of generality of SEA abstracts 2.23
2.12 Effect of form of original on length of SEA abstracts 2.24
2.13 Effect of form of original on level of abstraction and degree of generality 2.26
2.14 Effect of part of original abstracted on structure of SEA abstract 2.27
2.15 Level of abstraction and degree of generality in relation to structure of SEA abstracts 2.28
2.16 Effect of form of original on structure of SEA abstracts 2.29
2.17 Frequency of topping and tailing 2.35

CHAPTER 3

3.1 Use of SEA in selected groups of libraries . . . 3.12
3.2 Use of SEA by different groups of users in libraries 3.13
3.3 Number of bibliographical services used by university group in relation to services known 3.17
3.4 Knowledge and use of most widely used bibliographical services 3.18
3.5 Recency in use of most widely used bibliographical services 3.19
3.6 Retrieval use of most widely used bibliographical services 3.20
3.7 Use of most widely used bibliographical services for exhaustive searches 3.20
3.8 Current awareness use of most widely used bibliographical services 3.22
3.9 Knowledge and use of most widely used bibliographical services (seminar group compared with university group) 3.24
3.10 Number of bibliographical services used in relation to services known (seminar group compared with university group) 3.24
3.11 Recency in use of most widely used bibliographical services (seminar group compared with university group) 3.25
3.12 Retrieval use of most widely used bibliographical services 3.25
3.13 Use of most widely used bibliographical services for exhaustive searches (seminar group compared with university group) 3.26
3.14 Current awareness use of most widely used bibliographical services (seminar group compared with university group) 3.27

page no.

3.15 Preferred type of abstract according to form of original 3.108
3.16 Summary of table 3.15 . . . . . 3.109
3.17 Preferred type of abstract according to approach of original 3.110
3.18 Summary to table 3.17 . . . . . 3.111

L I S T O F F I G U R E S

INTRODUCTION

		page no.
1	Factors influencing long-term planning of SEA . .	5
2	SEA as a system	5
3	Type of information obtained in main studies (excluding documentary analyses)	6
4	The organisation of the SEA service	9

CHAPTER 1

1.1	The relationship of sociology of education to other areas of study	1.2
1.2	Types of relevance	1.3

CHAPTER 3

3.1	Analysis of content of SEA abstract 6(1), 30 . .	3.53
3.2	Acceptability of indexes in terms of usefulness to the sociologist of education . . .	3.81
3.3	Acceptability of indexes in terms of usability	3.82
3.4	Acceptability of indexes in terms of effectiveness for prediction of relevance of documents . . .	3.83
3.5	Acceptability of index entries in terms of accuracy of entry as given	3.85
3.6	Acceptability of index entries in terms of inclusion of important concepts	3.86
3.7	Acceptability of index entries in terms of adequacy of indication of relationships between concepts	3.87
3.8	Classification of approaches to the literature of the sociology of education	3.123

C O N T E N T S

VOLUME II

A P P E N D I C E S

A Proposal for research to the Office for Scientific and Technical Information by the editor of Sociology of Education Abstracts and Oxford University Department of Education.

B Access to information in the sociology of education: an information paper.

C Study on abstracting.

D Coverage and form of abstract: guide to coding.

E Analyses of journal citations in articles on the sociology of education appearing in selected American and British journals 1966-1968.

F Enquiry into the relative value of titles and abstracts for determining the degree of relevance of books or journal articles.

G Sociology of Education Abstracts - experimental bibliographical enquiry service.

H Access to literature on sociology of education for lecturers and researchers in colleges of education: Guidelines for discussion and Information needs in the sociology of education: report of discussions amongst college of education lecturers.

J Use, in libraries, of Sociology of Education Abstracts.

K Use of bibliographical services for information on books and journals in the sociology of education.

L Views of sociologists of education on the 'ideal' bibliographical service.

M Seminar materials.

N Guidelines for abstractors and Memorandum on policy.

P OSTI-SEA Research Project - Stage II.

INTRODUCTION

Genesis of the OSTI-SEA project

The project was conceived as a result of the growing consciousness of the Editor of Sociology of Education Abstracts (SEA) that as a service SEA had set itself a task which is steadily increasing in complexity and size. Public and academic awareness of the contribution which sociology can make to the solution of educational problems is growing. Conversely, sociologists are becoming more interested in the contribution which the study of education can make to the development of sociology. These two trends are reflected in an increasing volume of research and writing on the subject.

There is some evidence that SEA has contributed both to the volume and to the quality of the British literature and it is still important that the service should be looked upon as a means by which the sociological quality of educational research is raised.

At the same time the conceptual and methodological quality of sociological research is developing. Older classifications are no longer adequate.

SEA was designed primarily as a current awareness service. It was a service by subject specialists for subject specialists. We are now conscious of new demands as the number and variety of clients increases. SEA has quickly passed through the 'amateur' phase in which academic organisers exploit themselves in order to meet an important and immediate need as they perceive it.

It was clear that the service should be developed as a tool

for retrieval. The exact nature and direction of development however posed major questions to which existing experience and research could give no guidance.

The Editor therefore took the initiative of seeking discussion with OSTI and, as a result of an encouraging response, a proposal for a three-year project was submitted in which 'the aim of the research will be to develop a system which will meet the information needs, patterns of enquiry and preferences as to type of service of its users'. In the preparation of the proposal experts such as D. J. Foskett and M. B. Line were called upon for advice and contributed substantially to our thinking.

It was known by summer 1968 that OSTI were prepared to support the work. St. Cross College, Oxford, also became interested in the project, and it was agreed that subject to approval of the person appointed, the post would carry with it Fellowship of the College. Additionally, St. Cross is unique amongst Oxford colleges in having arrangements for on-line access to the Atlas Computing Laboratory at Chiltern, a facility most valuable to this research. A research officer (Miss V. Winn) was appointed in September and began work in December 1968, under the direction of the Editor, Dr. D. F. Swift. Mrs. P. Jackson was appointed as Research Secretary in October 1968.

A Steering Committee was in the meantime set up consisting of the following: A. Macgregor, OSTI; M. Line, Bath University of Technology; Professor W. A. L. Blyth, University of Liverpool; M. Craft, University of Exeter; and D. J. Foskett, University of London Institute of Education.

The research proposal (see Appendix A) outlines the intended

content of the project. A time schedule was included but, in view of the fact that the researcher could not take up the appointment as soon as was hoped, this, with the approval of the Steering Committee, was modified. Stage 1 work will now be completed at Easter 1970 when as an alternative to a series of interviews, a number of experts have been convened for a 'seminar' consisting of panel work and discussion in Oxford.[1]

Detailed planning

It will be seen that the brief was very general. The early months were therefore devoted in large part to (a) a more exhaustive study of the information literature than was possible at the time of preparation of the proposal, (b) detailed planning.

It has been considered unnecessary to preface this report with a survey of the literature. A recent reading, in draft, of the comprehensive survey being prepared by M. Brittain of the INFROSS project at the Bath University of Technology (Information Requirements in the Social Sciences), shows that the work relevant to ours is substantially covered in this volume. We have therefore confined ourselves to citing at appropriate points when a given piece of work is pertinent to a particular problem.

With regard to planning, the main task in relation to Stage 1 was to identify the most important questions and to evolve strategies for collecting data to enable us to answer them. There was a great deal of ground to cover, and it seemed desirable to attempt to study as many aspects of the service as possible even if only in a general way, rather than to look at selected aspects only in detail. A particular problem has been

---

1. It was hoped to hold this seminar in September 1969 but this proved impossible.

the interdisciplinary nature of the field which made necessary parallel studies (sociology of education in the context of education/of sociology).

All the studies are based, as is SEA itself, on the notion of reliance on the judgment of experts in the field. In the study of the present service, for instance, it is understood that there will be differences in judgment for different valid reasons. The object is to attempt to assess the extent and understand the reasons for differences. This is necessary in order to see how we may best achieve a compromise between the consistency needed for practical reasons and the desire, for intellectual reasons, to reflect the thinking of experts about their own literature.

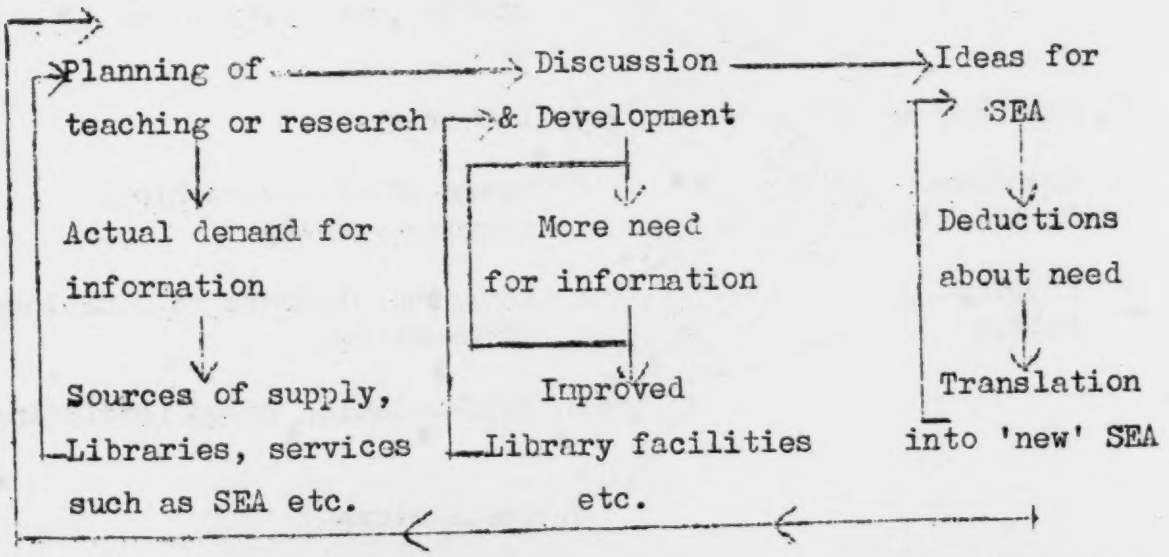
Similarly in the consideration of user needs, although contextual data on sociologists and educationalists is available (data collected by the INFROSS team), it has still been desirable to study sociologists of education as a group. Their academic habits, problems and needs are the basis on which we have to work, and even then it is not from the views of a representative range of such specialists that we may derive definite guidance. Specially selected groups of experts, speaking for the 'best' interests of the field, are felt to be required for this purpose.

One consequence of this approach is unfortunately that we have a relatively small population with which to work. This may be an advantage in that a census rather than a sample may be taken. On the other hand, since there is a considerable number of important points to consider in detail, our demands on the time of these people could be such as drastically to lower the 'response rate'. The planning of the studies had to take this

consideration into account.

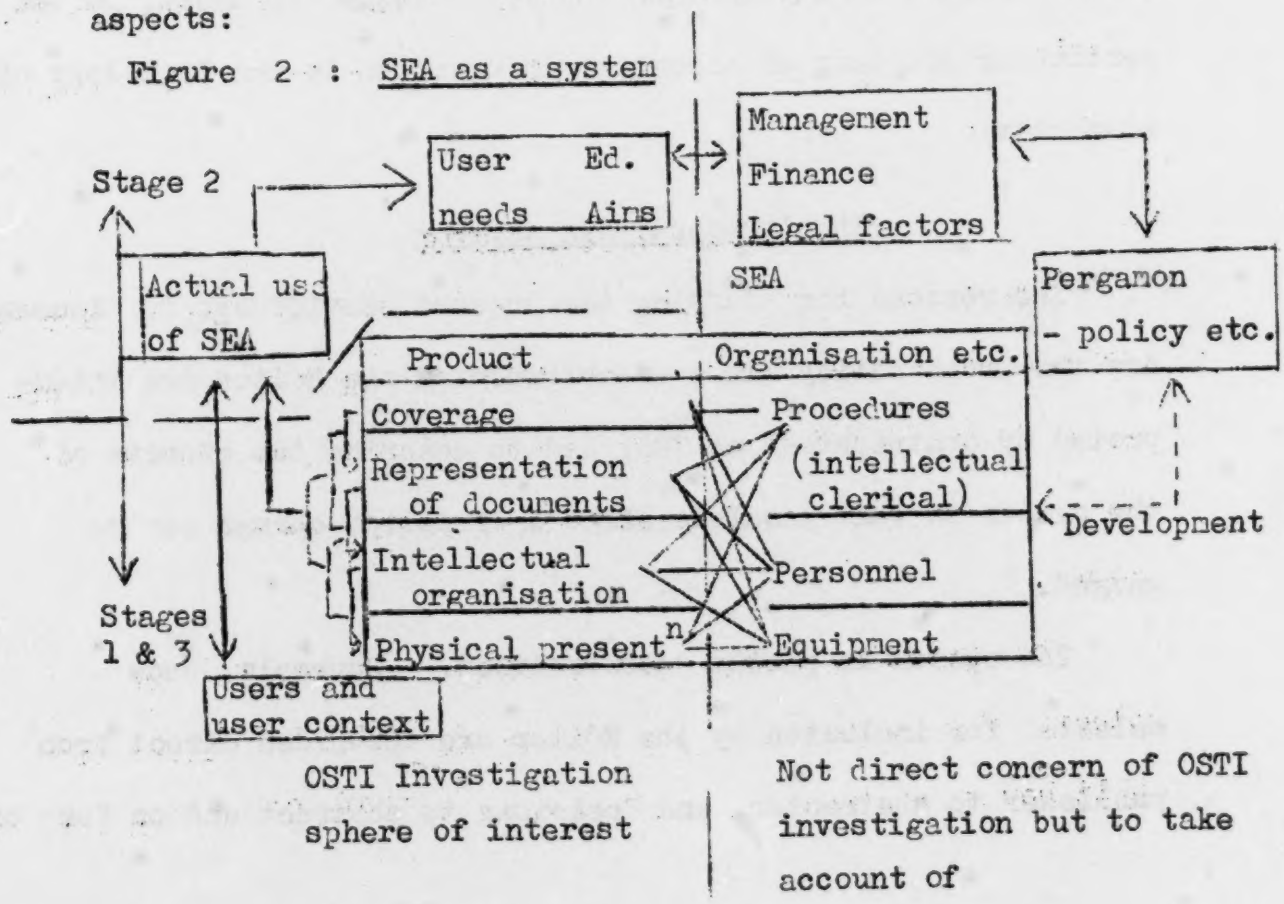
In relating the viewpoints both of users and of abstractors (who serve the discipline from within the discipline) to the practical situation (i.e. the product and the service as an organisation), an attempt has been made to study the problem in a broad context:

Figure 1 : Factors influencing long-term planning of SEA


Planning of teaching or research
Discussion & Development
Ideas for SEA
Actual demand for information
More need for information
Deductions about need
Sources of supply, Libraries, services such as SEA etc.
Improved Library facilities etc.
Translation into 'new' SEA

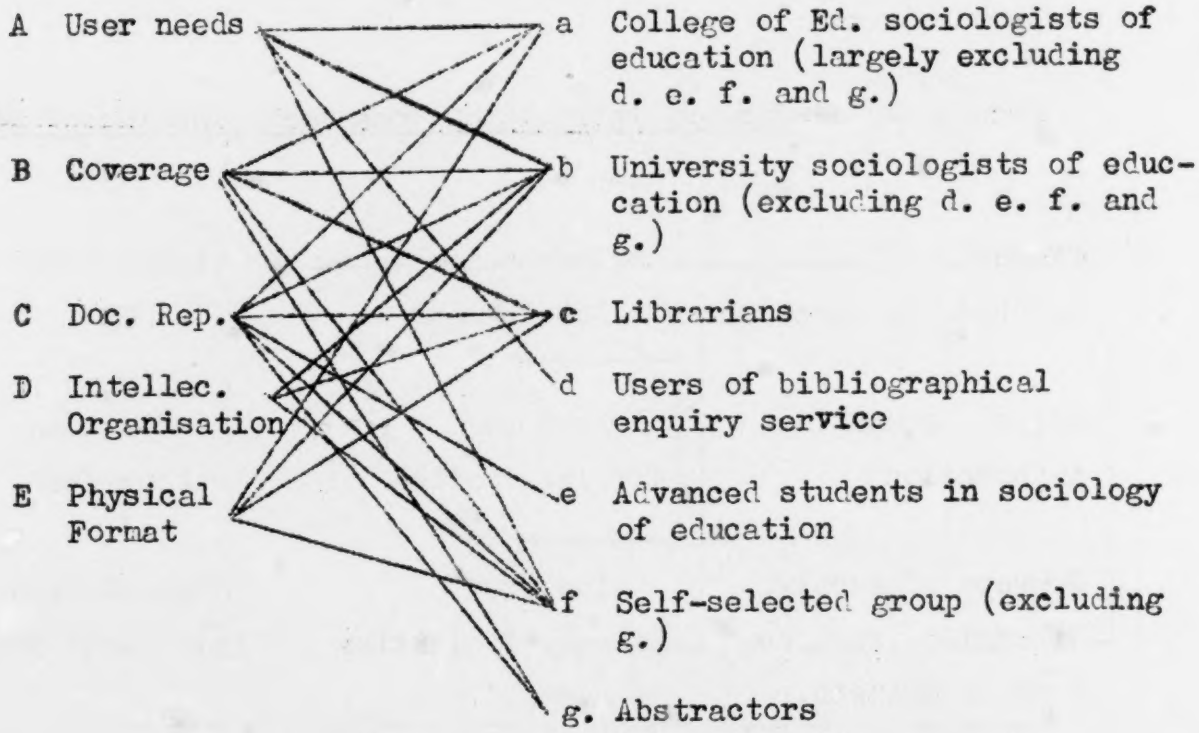
At the same time our attention has also been focused in detail on the SEA service in both its intellectual and practical aspects:

Figure 2 : SEA as a system



The areas for study as represented above however do not form the boundaries of the studies which are organised rather by user as follows:

Figure 3 : Type of information obtained in main studies (excluding documentary analyses)


A User needs
B Coverage
C Doc. Rep.
D Intellec. Organisation
E Physical Format
a College of Ed. sociologists of education (largely excluding d. e. f. and g.)
b University sociologists of education (excluding d. e. f. and g.)
c Librarians
d Users of bibliographical enquiry service
e Advanced students in sociology of education
f Self-selected group (excluding g.)
g. Abstractors

For the general context of the investigation see Appendix B, which contains an information paper, addressed to users, on the particular problems of access to information in the sociology of education.

The 'present' SEA service

The reasons for studying the present service are to discover how the broad policy lines established by the Editor are interpreted by contributors to SEA, and to describe the effects of the system so that possible effects of policy change can be gauged.

The system is partly decentralised. Journals, once selected for inclusion by the Editor are forwarded direct from publisher to abstractor, and decisions to abstract and on form of

abstract are the responsibility of the abstractor. Books are selected by the Books Editor; these are received in the office for allocation and forwarding to abstractors; in some cases suggestions are made as to form of abstract but there are no general guidelines. The flow of material through the system, once an instruction is given to 'obtain for SEA', has been initiated and controlled without supervision by an 'administrative assistant', who also prepares copy for the printer. There is thus a large measure of delegation of authority.

This delegation of authority to abstractors has been a matter of principle as well as necessity. Abstractors are academics and it was felt that the service could in some real sense represent the discipline. It is true that the material 'covered' by each abstractor was realised to be only a very small part of the whole and thus that 'desisions' might be biased. But since, as academics, abstractors have a knowledge of the literature rather wider than that derived from the material abstracted for SEA, it may be argued that collectively their decisions represent a reasonable approximation to the 'best' decisions.

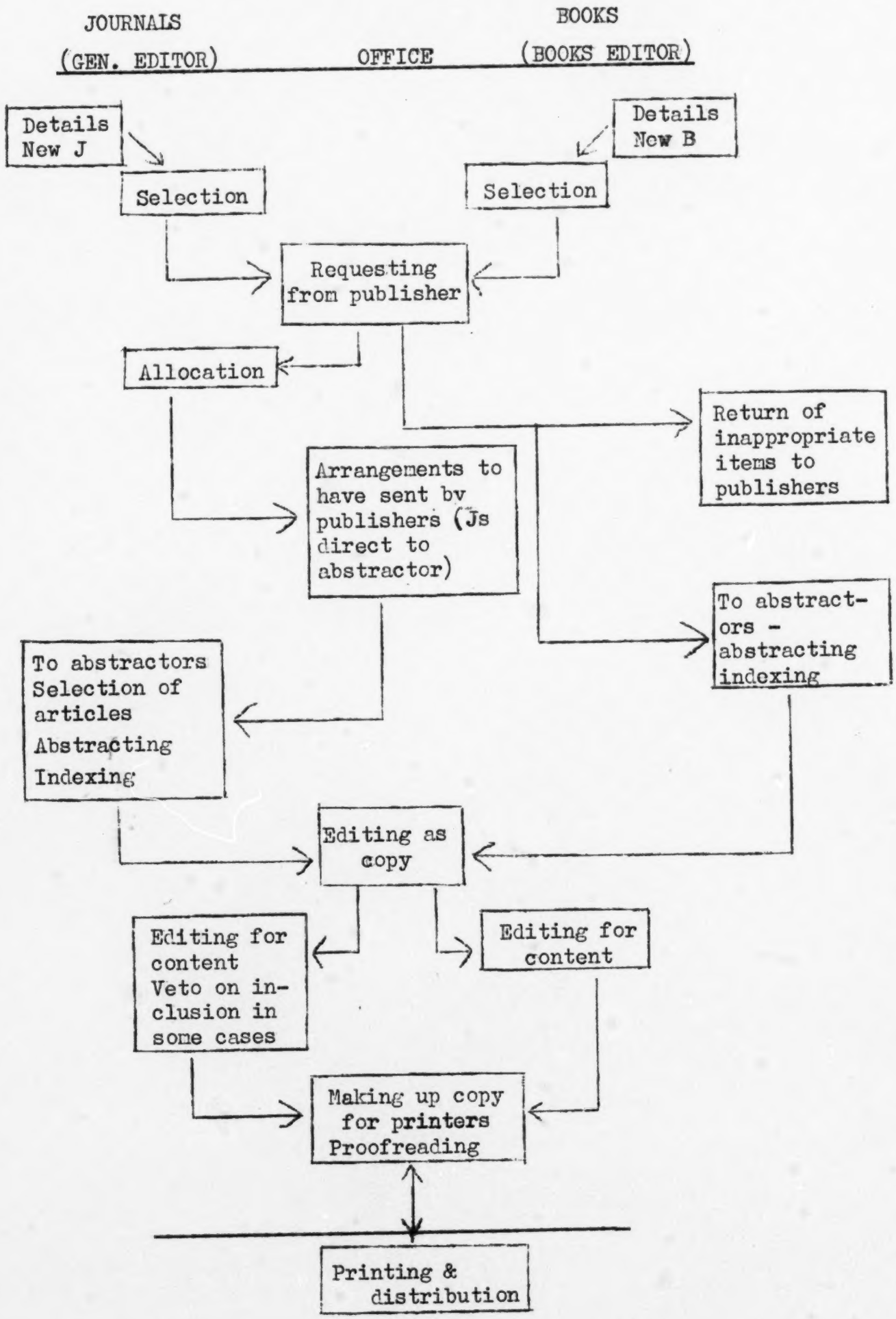
Various factors contribute to make this argument less easy to support now than in SEA's early days. The company of abstractors has more than doubled and whereas members of the original group were mostly fairly closely acquainted with each other and shared common aims in agreeing to participate in SEA, this is less true today, and abstractors are less able to work as a 'team'. Additionally the numbers of those engaged in the sociology of education was then relatively small and the abstractors probably much more representative of their colleagues

than is the case today. The introduction of abstractors from overseas has no doubt tended to blur the original focus. Abstractors are now too less able to keep a complete overview of the field (even with the aid of SEA!) to which they can relate their individual decisions.

With regard to administration a major change was the inclusion of books in addition to journals, and the appointment to the editorial staff of a (voluntary) Books Editor. Policy with regard to books was necessarily somewhat different but, working within the same Department, close consultation with the Editor has been possible. Additional office work as the service grew brought the appointment of a full-time clerk, and another factor impingeing upon realisation of policy aims.

Control is exercised at the outset, in inviting appropriate people to collaborate in accepting offers of help, and in the final analysis by the right of veto. The situation to be investigated is not one in which exercise of judgment is in any way questioned but rather one of varying perceptions of aims. Human error is also inevitable. The situation has been recognised as having potential dangers. It is intended to appoint an Assistant Editor to co-ordinate and ensure singleness of purpose and vision.

Figure 4 : The organisation of the SEA service



CHAPTER 1

COVERAGE OF SEA

Background

In am area such as the sociology of education it is far from easy to describe simply the coverage of a service either in terms of policy or of practice. SEA's aim is to offer wide coverage of published material relevant to the study of the sociology of education. The field is neither wholly pure nor wholly applied (those working within it may be concerned either simply with knowledge as knowledge or with providing information which may be of immediate practical value). It is not simply academic discipline oriented, nor is it essentially problem centred. Perhaps it may best be regarded as group oriented. In view of the heterogeneity of our users, evident in the analysis given in chapter 3, such a description offers no clear guidance as to precisely how 'relevance to the study of the sociology of education' should be defined.

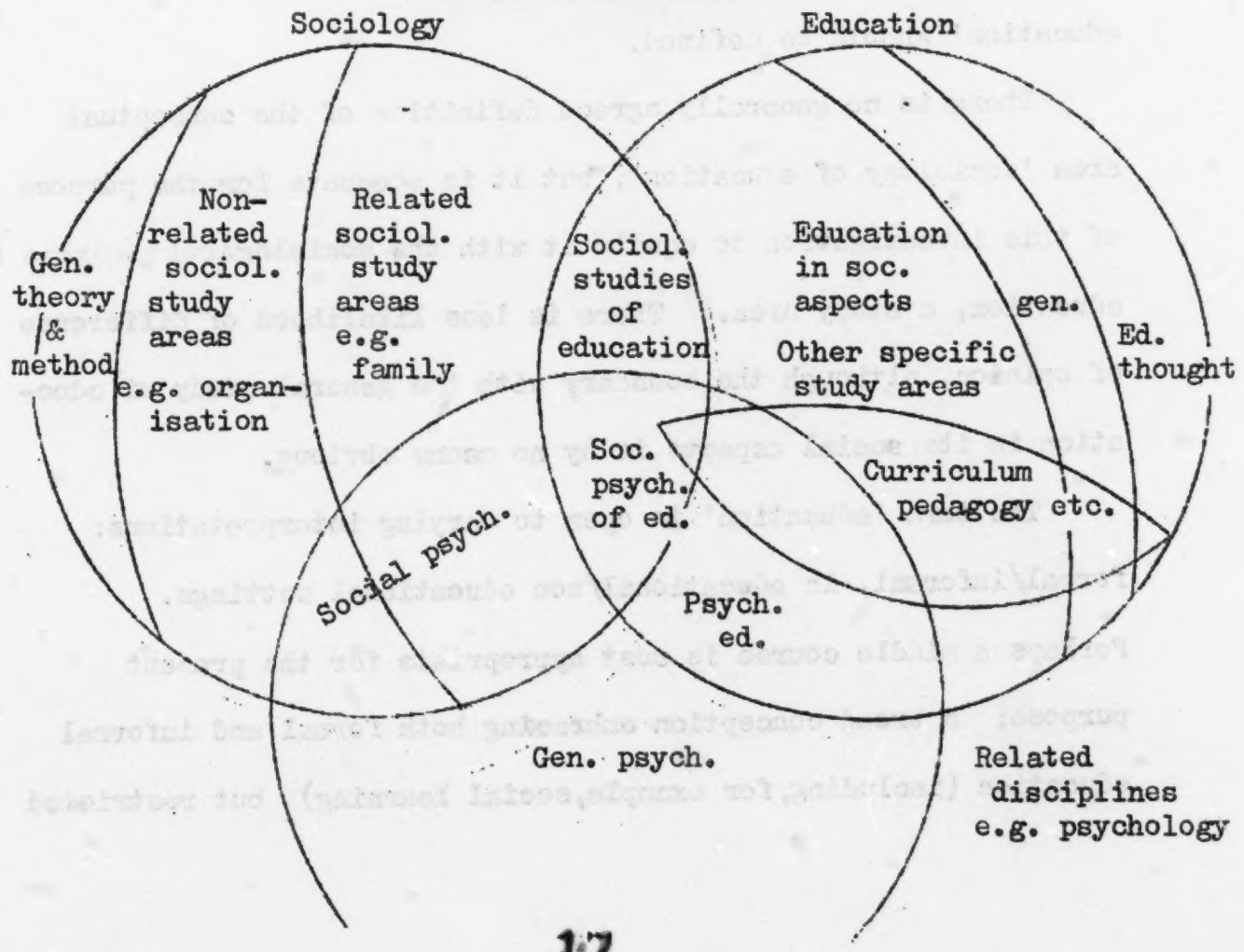
There is no generally agreed definition of the conceptual area 'sociology of education', but it is adequate for the purpose of this investigation to equate it with the sociological analysis of education, a study area. There is less likelihood of difference of opinion, although the boundary with the general study of education in its social aspects is by no means obvious.

The term 'education' is open to varying interpretations: formal/informal, in educational/non educational settings. Perhaps a middle course is most appropriate for the present purpose; a broad conception embracing both formal and informal education (including, for example, social learning) but restricted

to educational settings (i.e. excluding familial socialisation which would be regarded as another (closely related) area of study under the heading of sociology, though no less central to the study of the sociology of education).

The term 'sociology' may also be used with varying and overlapping connotations. Two usages are in this context best kept distinct. First, use of the term 'sociology' to include social psychology and socio-economic studies. We make a distinction between sociological analysis of education on the one hand and social-psychological study of education, economics of education on the other. Then, with less justification perhaps, 'sociology' is sometimes taken to include social description; in the context of the study of education, this is more properly included here in the category established earlier, education in its social aspects, though specific areas (e.g. social history of education) may warrant separate headings.

Figure 1:1 The relationship of sociology of education to other areas of study



These interlocking areas are all of <u>potential</u> relevance to the study of the sociology of education. Material can relatively reliably be assigned to these categories; material offering theoretical backing or background data from the disciplines may be readily assigned to ancillory categories. But SEA is selective in probably all areas except 'sociological studies of education'. Its boundaries do not circumscribe a certain number of these areas. Relevance is not to be defined simply in terms of the subject matter dealt with in a given document, nor is low/no relevance necessarily synonymous with marginality/ absence of subject interest. There is another kind of relevance 'indirect' or 'substitutional'; a marginal document which has nothing to do with the sociology of education may be as valuable in the study of the sociology of education, and as essential to a worker on the field, as a document of obvious relevance in terms both of subject matter and approach.

Figure 1.2 <u>Types of relevance</u>

<u>Approach</u>	Central	Marginal	Substitutional Relevance
Sociol.	Work actually in the soc. of ed.	Analyses of the context of educ.	Models for the soc. of ed.
Non-Sociol.	Essential background data	Description of the context of educ.	-

In addition there are also various other parameters such as form, treatment, quality, level, which determine the usefulness or importance of marginal, substitutional and non-sociological material and thus SEA's principles of selection.

The description of coverage has been approached in two ways. A sizeable sample of documents abstracted in SEA has been analysed in some detail with regard to features on which there can be at least a considerable measure of agreement. Each feature was coded twice (by a sociologist and by a librarian) and for some the process was repeated after a period of some weeks. Agreement to within 5% was achieved. (The coding schedule is to be found in Appendix D) Features of which account was taken were: length of original; whether book or journal (and which journal); whether whole or some part of work; form (e.g. book or readings, textbook, report etc.); area of study or perspective (e.g. sociology, sociology of education); specific topic; language. The sample consisted of Vol.4 of SEA, the last complete volume at the time this study began. This data enables us to characterize in some detail the material we deal with, and to quantify some of the problems of which we are conscious.

The second approach was to conduct a much more intensive study with selected abstractors in order to study the kinds of evaluative judgment that are made, and their effect, and to relate SEA material to the population of documents from which we select. This latter work is reported on page 1.16.

Results of analysis of material abstracted in SEA volume 4.

Detailed tables were prepared (these will be made available on request). These were summarised for the purposes of the

following discussion.[1] It should be noted that the unit of analysis is the unit of the abstract, i.e. if a single chapter of a book was significant enough to be accorded a separate abstract it is treated as a separate 'item' for the purpose of this analysis.

Discipline perspective

The proportion of items which are sociological studies of education is surprisingly small (20%) and even if one adds in social psychology of education (25%) this still amounts to less than half the contents of SEA. The remainder is general education (roughly another 25%), economics of education and relevant sociology (13% and 9% respectively), together with a few studies in other areas. (For table see overleaf.)

Topic

An analysis by specific topic (focal topic of each document) was made. This has also been grouped according to broad categories and a summary prepared to show distribution over the main discipline orientations represented. Studies of types of institutions, of educative groups, broad areas of educational study (e.g. comparative education), social processes and characteristics, and psychological characteristics are the largest categories, ranging from 15% to 23%. The same topic may of course be treated from a number of viewpoints. The preponderance of institutional studies is from the educationalist's standpoint. There are no studies of non-educational institutions, although SEA has included a handful of such studies of groups, and also of

---

1. Data on coverage by language is not yet available. Details of time-lag between publication of original and publication of abstracts will also be reported later.

TABLE 1.1.

NUMBERS OF ABSTRACTS IN SEA VOL. 4
ACCORDING TO DISCIPLINE ORIENTATIONS

Vol. 4	Sociol. of ed.	Social psych. of ed.	Education system pedagogy etc.	Ed. research	Ed. admin.
(1)	32(10)	33(7)	24(7)	0(0)	13(6)
(2)	37(11)	39(8)	18(7)	3(2)	21(7)
(3)	33(9)	33(7)	36(9)	3(1)	23(6)
(4)	40(12)	32(4)	14(6)	1(1)	15(6)
	142(42)	137(26)	93(29)	7(4)	72(25)

	Sociol.	Gen. soc. sci. & ed.	Econ. of ed.	Social hist. of ed.	Anthropol. and ed.
(1)	15(8)	3(2)	38(4)	8(4)	5(1)
(2)	17(8)	2(2)	25(12)	6(3)	1(0)
(3)	14(6)	4	11(1)	3(2)	0(0)
(4)	19(8)	1(0)	13(4)	3(3)	1(1)
	65(30)	10(5)	87(21)	20(12)	7(2)

	Psych. of ed.	Pol. of ed.	Gen. soc. Science	Economics	Social History
(1)	0(0)	0(0)	3(2)	0(0)	
(2)	3(0)	3(2)	2(2)	1(1)	
(3)	8(1)	5(3)	4(1)	2)	
(4)	17(0)	3(1)	1(0)	1(1)	
	28(1)	11(6)	10(5)	4(4)	0

	Social anthrop.	Psychology excl. soc. psych.	Social psych.	Social admin.	Management study.
(1)	0(0)	0(0)	10(4)	0(0)	2(1)
(2)	0(0)	0(0)	12(5)	0(0)	1(1)
(3)	1(0)	0(0)	6(2)	1(1)	2(1)
(4)	0(0)	1(0)	4(1)	3(2)	1(1)
	1(0)	1(0)	32(12)	4(3)	6(4)

Figures in brackets are for books only

social processes. Not surprisingly most of the work dealing with psychological characteristics is viewed from a social-psychological perspective. Most work in the economics of education is of a general nature. (For table see overleaf.)

Journal coverage

An analysis of journals covered was also prepared. A summary list, in rank order, of the 'top' journals is merely given here. (For table see p.1.9) There is of course only one journal devoted exclusively to the sociology of education - even this does not show 100% coverage since although all full papers were abstracted certain 'communications' were not. For the rest the proportion of articles abstracted does not rise above 40% and there is a very long tail as would be expected. British journals are well placed; prestige American journals rank rather lower. Educational journals outrank sociological journals at the top, and British sociological journals tend to outrank their American counterparts. This feature perhaps reflects a greater interest in the sociology of education amongst British sociologists. Journals outside the fields of sociology and education figure hardly at all amongst our top journals but this ranking is of course based on quantity rather than quality of material drawn from individual journals.[1]

---

1. The 1968 figures are shown in the context of a four year period. There are of course many factors which may distort the pattern: gaps due to 'slip-ups' on the part of suppliers or abstractors; fluctuation in selection criteria; pressure on space giving rise to backlogs, etc. It was relatively simple to extend this analysis over a longer period; other analyses unfortunately for reasons of time have had to be restricted to 1968 alone.

TABLE 1.2

COVERAGE IN SEA VOLUME 4 BY TOPIC CATEGORY AND DISCIPLINE ORIENTATION

	Sociol. of ed.	Social psych. of ed.	Econ. of ed.	Pol. of ed.	Psych. of ed.	Soc. hist. of ed.	Anthropol. & Ed.	Social science & ed.	Total
Types of nstitution	29	1	16	2	0	5	0	0	53
Curriculum & teaching	0	7	1	0	1	1	0	0	10
Other ed. processes	9	8	0	0	2	0	0	0	19
Practical aspects of ed.	1	0	7	0	0	0	0	0	8
Groups	28	26	1	0	2	2	0	0	59
Ed. study areas	32	8	47	5	0	4	1	4	101
Soc. processes and characteristics	15	27	4	0	1	0	0	0	47
Psych. characteristics	1	66	0	0	12	0	1	0	80
Other soc. science	1	8	0	2	0	0	0	0	11
	116	151	76	9	18	12	1	4	288

Table continued overleaf

TABLE 1.2 (continued)

COVERAGE IN SEA VOLUME 4 BY TOPIC CATEGORY AND DISCIPLINE ORIENTATION

	Management study	Education (incl. research & admin.)	Sociol.	Social psych.	Econ.	Psych.	Social anthropol.	Social science gen.incl. soc.admin.	Total
Types of institution	0	68	0	0	0	0	0	0	68
Curriculum & teaching	0	10	0	0	0	0	0	0	10
Other ed. processes	0	5	0	0	0	0	0	1	6
Practical aspects of ed.	0	19	0	0	0	0	0	0	19
Groups	0	10	12	5	0	0	0	0	27
Ed. study areas	0	34	0	0	0	0	0	0	34
Soc. processes and characteristics	1	9	31	11	1	1	0	2	56
Psych. characteristics	0	3	2	14	0	2	0	0	21
Other soc. science	5	110	5	1	3	1	1	6	132
	6	158	50	31	4	4	1	9	263

TABLE 1.3

"TOP" JOURNALS AS REPRESENTED BY ABSTRACTS
IN SOCIOLOGY OF EDUCATION ABSTRACTS
OVER 4 YEAR PERIOD 1965-1968

	No. articles in cited journal abstracted over total 4 year period	No. of articles in cited journal abstracted in 1967 only	No. of articles in cited journal abstracted in 1968 only	Col. 1 as % of total no. of articles in cited journal	Issues p.a. of cited journal	Average no. articles per issue of cited journal
Sociology of Education	69	12	25	69	4	6
Comparative Education	28	5	13	38	3	6
Educational Research	41	14	6	35	3	12
Journal of Educational Administration	16	9	4	33	2	6
New Zealand Journal of Educational Studies	12	6	6	30	2	5
Journal of Educational Thought	14	1	12	24	3	5
Canadian Education and Research Digest	26	3	13	23	4	7
Alberta Journal of Educational Research	26	5	13	20	4	8
British Journal of Social and Clinical Psychology	26	4	2	20	4	8
British Journal of Sociology	20	4	3	20	4	6
Sociometry	24	5	6	20	4	7
British Journal of Educational Psychology	33	3	6	18	3	15
Comparative Education Review	18	12	3	18	3	8
Young Children	34	13	12	16	6	9
Merrill Palmer Quarterly	13	0	0	16	4	5
Teacher Education	11	4	1	16	3	5

(continued overleaf)

	No. articles in cited journal abstracted over total 4 year period	No. of articles in cited journal abstracted in 1967 only	No. of articles in cited journal abstracted in 1968 only	Col. 1 as % of total no. of articles in cited journal	Issues p.a. of cited journal	Average no. articles per issue of cited journal
Sociological Review	11	4	3	15	3	6
American Sociological Review	26	8	4	14	6	7
Educational Review	10	2	1	12	3	7
School Review	15	3	0	12	4	8
Technical Education	62	16	25	12	12	12

Balance between books and journals

It is evident that there is a roughly similar balance between numbers of book and journal abstracts in each issue, but that this is not necessarily represented in the numbers of publications represented in each category. In the case of symposia containing sets of separately authored papers, individual papers may be abstracted individually, but as in issue 4, books of this type and of sufficient interest to merit this treatment may not come to hand for any given issue. The fifty-fifty allocation of abstracts amongst books and journals abstracts which was up to volume 4 our aim was upset by issue 4 (roughly $\frac{1}{3}$ books/$\frac{2}{3}$journals), probably due to a mounting backlog of journal abstracts.

TABLE 1.4

NUMBERS OF BOOK AND JOURNAL ABSTRACTS IN SEA, VOL. 4

	Books (entire)[1]	Chapters of books	Journals (whole issues)	Articles in journals
Vol. 4				
(1)	58	38	3	87
(2)	76	21	3	91
(3)	52	34	1	98
(4)	50	0	5	114
Totals	236	93	12	390

In volume 5 policy has been altered to $\frac{1}{3}/\frac{2}{3}$ distribution. The need for this is due in part at least to the addition of about 60 new journals to the list of those 'covered', and the change has resulted in a rise from an average $3\frac{1}{2}$ to $4\frac{3}{4}$ abstracts per journal in volume 5. Since in general the journals added tend to contain

1 Including those treated by focusing on a particular section or theme but setting this in the context of the whole work.

discursive articles on topics of current or controversial interest, this may represent in some sense a dilution of coverage, though perhaps more accurate representation of the total relevant literature. It may equally well be regarded rather as a difference in coverage. Such 'current' topics are of importance but too newly prominent to have been thoroughly researched; journalistic treatment may therefore be the best available. The increase in numbers of abstracts per journal may also mean that a smaller amount of relevant work of a more rigorous kind was found in journals previously covered but it is in the main probably that we are including more work of a less scholarly kind.

Quality

Quality is not something which could be directly measured for the purpose of this analysis but to the extent that length is an indicator of a 'solid' contribution to the literature the proportion of items of 5 pages and under was about 12% in volume 4.

TABLE 1.5

ABSTRACTS IN SEA VOL.4 ACCORDING TO LENGTH OF ORIGINAL DOCUMENT

	Short Articles 1-5pp.	Long Articles 6-25pp.	Short Monographs 26-100pp.	Long Monographs 101 +	Total
Vol. 4					
(1)	12	100	26	48	186
(2)	33	82	19	59	193
(3)	22	106	15	42	185
(4)	24	95	11	39	169
Totals	91	383	71	188	733

Figures in brackets are for books alone

Another indicator of quality is the nature of the work; about 17% was classified as being in some sense of general interest as contrasted with 'scholarly' studies (i.e. set within a theoretical framework, fully documented, referenced etc.).

TABLE 1.6

ABSTRACTS IN VOLUME 4 ACCORDING TO TYPE OF ORIGINAL DOCUMENT

	Readings	Conf. Papers	Ref. books	Off. Reports	Text books
Vol.4					
(1)	(4)	4(3)	(0)	10(10)	7(5)
(2)	(13)	10(9)	(1)	3(2)	7(7)
(3)	(13)	4(3)	(0)	1(1)	3(3)
(4)	(7)	4(3)	(0)	0(0)	15(15)
	(37)	22(18)	(1)	14(13)	32(30)

	Gen. background reading	Pract. guides	Reviews of the lit.	Bibliogs.
Vol.4				
(1)	4(3)	0(0)	4(2)	0(0)
(2)	3(2)	8(7)	9(3)	1(0)
(3)	3(1)	2(2)	9(4)	1(1)
(4)	7(3)	3(3)	4(1)	3(1)
	17(9)	13(12)	26(10)	5(2)

	Schol. Monographs	Trend reports	Critiques	Proposals
Vol.4				
(1)	112(23)	36(6)	3(1)	0(0)
(2)	111(27)	17(6)	8(1)	1(0)
(3)	109(17)	35(8)	2(0)	2(0)
(4)	103(13)	17(7)	3(0)	3(1)
	435(80)	105(27)	16(2)	6(1)

Figures in brackets are for books alone

In terms of treatment, about 40% of the material is classified in categories other than 'theoretical' and 'empirical'.

TABLE 1.7

ABSTRACTS IN SEA VOL. 4 ACCORDING TO TREATMENT

	Theoretical	Empirical	Factual	Discursive
Vol.4				
(1)	7(3)	60(18)	32(9)	59(15)
(2)	8(3)	64(16)	24(10)	68(32)
(3)	7(2)	64(8)	35(9)	61(24)
(4)	11(3)	64(7)	20(9)	54(25)
Totals	33(11)	252(49)	111(37)	242(96)

	Polemical	Historical	Mixture	Totals
Vol.4				
(1)	17(6)	9(6)	1(1)	185
(2)	9(2)	10(6)	8(6)	191
(3)	7(1)	6(3)	2(2)	182
(4)	12(3)	5(4)	1(1)	167
Totals	45(12)	30(19)	12(10)	725

Figures in brackets are for books alone

The selection process

Background

It is inevitable that there should be individual differences in selection practices across our abstractors. Perception of relevance in the SEA context is to a large extent a matter of evaluation. Indeed an abstractor's changing interests and commitments may tend to undermine the consistency of his own successive judgments. Such factors are considered in detail later in this

chapter but it is apposite here to discuss possible factors influencing abstractors. SEA's abstractors are all busy academics with considerable responsibilities and pressures on them; they give up their own time to do this work and fluctuation in available time is bound imperceptibly to influence decisions. This is a fact of life if one is fortunate enough to be able to call on abstractors of the academic calibre of ours. Other factors may be more amenable to adjustment.

Without guidelines abstractors have had to develop their own frame of reference to guide their selection, which will no doubt be related not merely to natural bent but to academic background and training, especially any recent qualification. For example some may be more preoccupied with questions of methodology than others and resultantly more rigorous in some respects and more permissive in others than colleagues. The frame of reference is likely to be not merely a notion of what is appropriate to the discipline but will also involve some practical consideration of what will be helpful to users, given limitations on SEA's space. Thoroughly to disentangle these kinds of factors would be a complex piece of research.

In the studies next described SEA coverage is related to the total range of material from which selection is made.

Under the heading of reproducibility of selection, two points have been considered:

1. The extent to which a number of individuals can agree upon material appropriate for inclusion in SEA (validity).
2. The extent to which an individual will make the same decision after a period of time (reliability).

For convenience this work was divided into two sub-studies: books and journals.

Validity of Selection

It was impossible for reasons of illness to conduct a panel study in which the Books Editor and other experts evaluated a sample of books for inclusion in SEA. Comparison between the Book Editor's original decisions and decisions made later by a panel would not be wholly valid, and a study without the participation of the person responsible for book selection would have lost much of its point. However at a later stage the Books Editor was able to do a decision replication exercise on a sample of material and the results have been compared with the General Editor's decisions on the same material (see p.1.26).

Data on reproducibility of selection in respect of journals was obtained in the course of a panel study with selected abstractors. Selected issues of eight journals were worked by four[1] abstractors of the six invited to participate. Each abstractor's list contained eight journals including one journal 'belonging' to him (i.e. abstracted regularly by him). In addition each abstractor reworked one other of his 'own' journals. 'Decisions' were recorded on a proforma according to specially devised coding schemes (see Appendix D). Apart from this the situation was the normal SEA one, though no abstractor is responsible for as many journals as this.

Factors taken into account in selecting journals and inviting participation were:

1. To include journals readily available and to cover as varied

---

1. A fifth partially completed the study.

a range of journals (and thus problems) as possible, educational and sociological, general and 'special aspects' - academic and journalistic. (Foreign language journals were excluded.) This is a contrast to an abstractor's normal load, which has some homogeneity in terms of his particular interests. It was hoped in this way to highlight the effect on selection of our policy of allocating material. The journals dealt with by all participants were:

American Sociological Review

Comparative Education Review

Journal of Educational Research

Journal of Social Psychology

New Society

Record

Sociological Review

Unesco Chronicle

2. Abstractors were partly selected by virtue of the journals required; personal factors also influenced the choice and number of abstractors involved. It was not possible to take account of individuals'orientations toward the sociology of education. It is plain that the participants are far too few to allow us to draw any firm conclusions, and the exercise should be viewed rather as an attempt to discover something about the nature of the problem of inconsistency in selection. (For table see overleaf.)

There is more 'total agreement' on sociological than educational journal material (40%/28%), agreement largely as to what should be excluded rather than what should be included. It is noted that whilst the overall measure of complete agreement is low, a great deal of the difference is to be attributed to a simple difference

TABLE 1.8

AGREEMENT AMONGST PANEL MEMBERS IN SELECTION OF ARTICLES FROM SOCIOLOGICAL JOURNALS

		ASR	JSP	NS	SR
Total no. articles in sample		18	30	31	16
Nos. on which total agreement	Yes	0	1	2	0
	No	6	7	20	2
Nos. on which one dissent only (by single abstractor in 3+ cases)	1 Yes: 3 No	9(b)	16(b)	2	10(b)
	1 No: 3 Yes	2	1	2	2
No. cases in which variation not attributable to views of single abstractor		1	5	5	2

TABLE 1.9

AGREEMENT AMONGST PANEL MEMBERS IN SELECTION OF ARTICLES FROM EDUCATIONAL JOURNALS

		JER	CER	R	UC
Total no. articles in sample		14	21	22	14
Nos. on which total agreement	Yes	1	4	0	1
	No	2	1	4	7
Nos. on which one dissent only (by single abstractor in 3+ cases)	1 Yes: 3 No	5(d)	5(a)	8(d)	2(d)
	1 No: 3 Yes	4(a)	8(d)	7(a)	4(a)
No. cases in which variation not attributable to views of single abstractor		2	4	3	0

(a, b, c, d, refer to individual abstractors; a and d have sociological institutional affiliation, b and c educational)

ASR = American Sociological Review NS = New Society

JSP = Journal of Social Psychology SR = Sociological Review

JES = Journal of Educational Research R = Record

CER = Comparative Education Review UC = Unesco Chronicle

in criteria applied by one individual. The more complex cases are relatively few (13%). It may be significant that simple disagreement in the case of educational journals came from abstractors with sociological affiliations[1] while the reverse is true in the case of sociological journals, though this is less clear cut. It may be significant that 'permissiveness' in an abstractor (in the 1 yes/3 no cases) is associated with the inclusion of journals of a journalistic type in the abstracting load (true in the case of abstractors b and d), with the effect of lowering the 'cut-off point' in selection. Time unfortunately will not permit us to test such possible inferences. However, even to know that such differences do occur is of practical value. Whether their incidence is low or high, precautions are still called for.

Reasons for differences can be suggested from a comparison of other information provided by the panellists on the nature of their decision in each case.

We offered the following broad categories:

1. Inclusion for one of the following reasons:
   a) On the sociology of education.
   b) Of immediate bearing though not strictly 'sociology of education'.
   c) Of relevance in the sense that a wide range of social science and educational writing is relevant, but has special feature(s) which make it appropriate in the SEA context (e.g. bearing on problems of current concern in educational research).

---

1. i.e. in sociology departments of universities or colleges.

d) Other.

2. Rejection

a) Of the same type as (1c) but having no features to justify inclusion.

b) Of the same type as (1c) but having features which make it undesirable or inappropriate in the SEA context.

c) Of little or no relevance.

d) Other.

It was expected that there might be differences in boundary lines, particularly between (1c) and (2a) (include or reject in borderline cases) and between (1a)/(1b) and (1c) ('musts' because material is on or highly germane to the sociology of education or general relevance only therefore marginal to SEA). Differences of the latter kind would be crucial if any attempt were to be made to 'trim' our coverage.

In fact the differences were much more fundamental than they at first appear. Even in cases of simple disagreement (e.g. 1 no/3 yes), the three abstractors wishing to include an item could vary between regarding it as a 'must' and marginally relevant whilst the fourth deemed it irrelevant (e.g. a paper on personality characteristics of bright adults), too trivial (a paper called 'Onward from approved schools') and so on. In the '3 no/1 yes' situation an abstractor wishing to include an item could regard it as being 'on the sociology of education' (e.g. an article on voluntary associations and the structure of power), or of immediate bearing (an article on labour relations and the Workers' Court, seen as relevant to university structure and organisation). We need therefore to achieve greater consistency

not merely in assessing degree of relevance but also in defining what constitutes relevance, especially in cases such as those cited where the relevance is of an indirect or 'substitutional' nature. The more conplex cases of disagreement present similar situations but with a greater range of alternative view points. (Lists of these several sets of items are available on request.)

It is possible that this study does not reveal the full complexity of the selection process because of the small number of participants, although we believe that the literature sample was adequate to raise most of the problems. For this reason, selected items from this sample are being used to formulate a set of guiding principles to be sent out as a working paper to abstractors for their comments. Some of the different ways in which individual abstractors may tend to view the material are illustrated by the four panellists in this study:

One makes rigorous demands in terms of sociological content of writing on educational topics. Material must <u>either</u> focus directly on educational topics (vague reference will not do) <u>or</u> have high substitutional relevance. Occasionally where educational problems are of current importance (e.g. education and the economy) material which is not strictly sociological (e.g. would normally be regarded as too economic, too psychological etc.) may be admitted. Items included should exhibit scholarly treatment (e.g. should present evidence for statements, not too superficial a discussion of theme).

Another is permissive to non-sociological material if both relevant to educational problems and 'important' (e.g. probably not history). All material of possible substitutional relevance should be included, together with all educational material even if

only small 'educational element' is present, but nothing 'too discursive' even if relevant.

Another is admissive of non-sociological writing on educational topics provided the emphasis is appropriate for SEA (there was regard for limits on space). Pure sociology should be included if the topic is relevant to one of the current central fields of sociology of education. The principal concern was with educational problems rather than educational study areas. Consideration should be given to users both at home and abroad (what is likely to be of interest, what they should be aware of etc.). Nothing too general would be appropriate.

The last is very permissive of non-sociological writing on education, but not hospitable to substitutionally relevant material unless obviously relevant to specific educational problem or activity. If there is marginal relevance only to such problems the material would usually be excluded. The main concern was with British users. Nothing too general would be included.

Decisions may be studied in more detail from statements made by panellists about the features, and priorities amongst features, of documents which influenced their decisions. A journal-by-journal account serves to structure the discussion and to outline the particular problems presented by particular types of material.

Of sociological journals, the American Sociological Review presented no problems with regard to quality considerations, but relevance was not merely a matter of direct or indirect (e.g. methodological) relevance of subject matter. Most of the difference was accounted for by a single panellist who took a much broader view than the others, and who saw an 'educational element' where others did not (e.g. 'deviance has educational

implications; 'education is one of the co-efficients emphasised'), although this panellist was still selective and where the relevance was too marginal decided 'no'. The other panellists were not searching for points of relevance, and in the few cases where they were at variance this seemed to be rather that there was common recognition of a certain kind of relevance (e.g. some data on education and mobility) but appreciation of marginality led to differing decisions. There was also another kind of case in which marginal relevance was perceived, but differently perceived e.g. one article was variously described as dealing with social problems of poverty, innovation in a subculture and relevant to learning theory.

The Journal of Social Psychology raises the question of how far the social psychology of education may be considered to be automatically appropriate to SEA and how far items of more theoretical and indirect relevance from social psychology itself should be included. A similar pattern was found (though with lower 'total agreement') as in the ASR, with the same abstractor taking a much broader view than the rest. The kinds of grounds were methodological, or e.g. 'a study of the influence of the leader would be helpful to those concerned with leadership development'. Other panellists noted marginal relevance but considered it too slight because the approach was not appropriate e.g. too psychological, 'really small group theory'. By contrast with 'straight sociology' the question is not just 'is there any relevance to education' but also 'is it important'.

New Society produced about 70% total agreement largely because a great deal was clearly irrelevant. The remaining disagreement was spread over all the panellists and derived again

from common perception of quality and relevance but triggering off three main types of decision: problem is relevant so include; anecdotal but relevant and little else written so include; relevant but treatment is too trivial so exclude.

The Sociological Review presented no quality problems and the low measure of total agreement was surprising. The single 'admissive' panellist who accounted for most of the difference did not unfortunately in all cases indicate his grounds for selection of items marked by others as irrelevant, but they appeared to be of very indirect relevance e.g. 'influence of social facts on social thought is relevant to educational administration'. Other conflicts of opinion were of two kinds. Reference to education in a more general work did not necessarily ensure inclusion; one panellist excluded one item despite relevance to education (as opposed to sociology) and included another because of it this was 'education and economy' which was regarded as of central importance. Another problem occurred with regard to general methodology: whether this was of sufficient relevance to include.

With regard to educational journals, the Journal of Educational Research was included because its contents are educational but largely non-sociological, and also because some of the research reported is on problems of lesser importance. Reactions varied. Material was by some excluded on the grounds that it was for example too psychological. Others felt that articles were relevant because they had a bearing on, for example, child development, perhaps a problem/discipline oriented difference? Yet another reaction was to be selective according to degree of relevance (e.g. purely child psychology but has important social aspects). 'Importance' of topic was not raised.

Comparative Education Review raised problems of a different range of non-sociological writing in education. Again there were contrasting viewpoints: (1) marginal so 'no'; (2) relevant though marginal so 'yes'; (3) relevant - relevant enough?). (This is probably inevitable where few items are overtly sociological in approach, all items deal with educational matters and thus high/low/no relevance is in question rather than, in the case of sociological journals, whether there is direct or indirect relevance to education. Some reasons for inclusion mentioned were: research methodology, implications for sociology, absence of other work of an empirical nature on a given topic.

The Record, an 'ideas' journal, was considered to present a different type of problem in selection, the majority of items being of a 'general interest' kind of relevance. Over-generality tipped the balance against relevance of topic in a number of cases, as also did 'prescription' veiled or otherwise, and concentration on pedagogical aspects of teaching method or curriculum.

Unesco Chronicle contained a fair amount of clearly non-relevant material. The general problem again was one of relevance v. generality, though pitched at a lower level. Panellists were not as highly selective on the whole as expected, though comments suggested that many items were 'only just' included.

These differences in adoption of guiding principles and in handling of different types of material may represent all the patterns or may be merely a random sampling of patterns of actual (and potential) abstractors. Consultation with abstractors is now clearly desirable. It is understood that in work at this level there are bound to be differences in individual judgment and

often more than one point of view which is wholly valid. Total consistency would never be achieved, and human factors can never be ruled out, but it would perhaps be possible to agree, arbitrarily if need be, on criteria and the values to be attached to criteria in a range of standard situations.

Reliability of selection decisions

A books sub-study focused on a three month period (January to March, 1969). All publishers' catalogues received during that period were scanned, together with issues arriving during the period of the British National Bibliography, Book Publishing Record and ten journals of which the review and 'books received' sections are regularly searched by the Books Editor for material for SEA. A few other sources which were used (e.g. library accessions lists) were also included.

In order to reduce the exercise to reasonable proportions the researcher listed from all the sources those items which potentially fell within SEA's outmost boundaries as these were seen to have been defined in volume 4 (which was analysed in detail). For example, since at least one book on methods of social research appeared in volume 4, all such works traced in any of the 1969 sources were listed for consideration, irrespective of whether they had any special features to commend them as did those included in volume 4. This gave a total of some 240 titles. Several months elapsed between the 'subject' analysis of volume 4 and the preparation of this exercise and reference was to headings not titles so as to minimise the effect of memory.

The Books Editor then scanned this list of titles (full bibliographical details were given) and indicated which items he would now wish to include. There must inevitably be contamination

by knowledge of what SEA included, together with greater familiarity with the detailed contents of the material than at the time of original selection. However to use older material, whilst perhaps reducing the influence of memory, would mean possibly considerable differences in external influences on decisions. We have found no solution to this problem.

The list of titles has been checked against our order files and against issues of SEA volumes 4 and 5, and present decisions are compared with original decisions:

TABLE 1.9

CONSISTENCY OF DECISIONS IN BOOK SELECTION

	High Priority	Desirable but space would not permit	Inappropriate	Would need to examine in more detail	
In SEA[1]	70	10	3	13	96
Not in SEA	37	16	33	27	113
Totals	107	26	36	40	209

A little over one third of the items now marked high priority were not actually selected for inclusion. A little under one third of the items included in SEA were now rejected. This seems on the surface to represent a considerable difference but there are a number of factors to take into account.

There are some items (about 20% of the total) on which judgment was deferred and time did not permit a follow-up. An

1. i.e. either on order, received and awaiting abstract or abstract published.

examination of the most extreme effects which the alternative possible decisions on this material might produce[1] shows that at worst the disagreement might amount to around 50%. Even the 'most favourable alternative' (about 15% disagreement) must give rise to some disquiet and is unexpected in view of the fact that book selection is entirely in the hands of a single person working his own single set of criteria. If it is correct to assume that these figures are misleading as a picture of reliability in decision making it must be then that there are intervening factors between decisions to obtain and inclusion in SEA. Various possibilities suggest themselves - reasons for which a decision is not effected or there is delay in effecting it and following it through. These are domestic matters and spot checks tend to suggest that a streamlining of acquisition procedures and of the 'transaction' with abstractors could reduce the problem considerably. Such measures are now being introduced.

Reliability of decisions with regard to journal material was studied simply by checking all items in the sample used in the study with abstractors for inclusion in SEA. These items were all published in 1968 and it was hoped that in borderline cases at any rate, in which we were particularly interested, abstractors would not recall their decisions and thus be influenced by them. It was also planned so that the lapse of time should not be so great that external factors influencing their

---

1. i.e.

most optimistic			most pessimistic		
83	13	96	70	26	96
37	76	113	24	49	113
120	89	209	134	75	209

decisions would be totally different.

Neither hope was fully realised; some panellists apologised for at least partial recall and some drew attention to those items where they knew they had altered their opinion and could pinpoint the reason. It is difficult to see how else the study could be organised but the results, for these reasons, should be regarded with caution, and are not in fact described in detail. Briefly, in the eight cases in which comparison can be made, the number of discrepancies ranged from 0 in 5 cases to 2 in 2 cases, the total divided roughly equally between formerly abstracted/now to be excluded and the reverse.

This represents the work of four out of all the SEA abstractors on two or three issues out of eight of the 250 odd journals we cover. It would seem that if typical this variance (about 3%) could in practice affect quite a number of items - perhaps 100 items per year (say 10% of the material we actually include), perhaps more. On the other hand, considering the problems presented by our material this would not be too discreditable. A larger study would be necessary accurately to quantify the problem. We have no data on performance of other services with which to compare.

Comparison of actual inclusion with editorial policy

The editorial policy of SEA is, expressed simply, to include (within a certain, now quite generous, available amount of space) such published material as is relevant to the current stage of sociological thinking and research into education. This is our general aim. Ideally, to assess how far we realise it, this aim should be translated into specific principles, against which we may measure our performance. However if such principles are to

be related to the current stage of work in the field they must of necessity be shifting. Further, even had specific guidelines been available their application would be highly subjective. For instance one direction would probably have indicated that any piece of research perceived to offer a useful model for a particular type educational research should be included, irrespective of the population or context in which the research was carried out - it might for example be hospital administration. This requires depth of specialist knowledge and insight, a resource which the service aims to tap. There was the further question of where the boundary should be drawn with this kind of work.

It was decided that the only way in which it would be possible to see how far the Editor's intentions were realised would be for him to indicate his judgments on a sample of material for purposes of comparison. It should be stressed that this is in no sense to suggest that in cases of difference there are right and wrong judgments. But it is more likely that someone with a complete overview of the material handled by SEA will be able to make a balanced appraisal in the more borderline cases and categories. This is a complementary study to that with abstractors, studying selection in broad whereas in that study a limited range of material was worked in depth. It was also a study on the Editor's personal province of selection, that of the journals to be covered.

With these objectives it was essential to cast the net widely amongst journals less likely to contain relevant material as well as those of more immediate interest. At the same time impossible demands upon the Editor's time were to be avoided.

The study was conducted in three parts dealing with books, educational journals and sociological journals. Practical considerations dictated the method which varied from one part to another.

With regard to the consonance of book selection with editorial policy, the Editor does not deal in detail with selection of books, but he sees the end product. There is therefore some of the contamination which would seem to be inseparable from this type of study. The sample of material was that used in the study with the Books Editor (see pp. 1.26). Titles were marked for relevance to SEA and a comparison was made with the abstracts actually published in SEA:

TABLE 1.10

COMPARISON BETWEEN EDITOR'S EX POST FACTO DECISIONS AND ULTIMATE PUBLICATION OF BOOK ABSTRACTS.

	High priority	Desirable but space would not permit	Inappropriate	Would need to examine in detail	
In SEA	67	20	8	1	96
Not in SEA	38	30	40	5	113
	105	50	48	6	209

About 65% of those considered to be a high priority (i.e. those for which space would be available) were included and 40% of those rated desirable had also been included in SEA. The majority of those considered inappropriate were not abstracted. About 30% of the items actually appearing in SEA were not considered high priority by the Editor.

A comparison was made also with the Books Editor's decisions in the exercise referred to earlier. It would be unwise to assume, because decisions made in a similar situation are being compared that this is more valid because the items to be considered in the panel study far outnumbered anything encountered in the real life situation and the effects on individuals may vary. However, by eliminating the domestic/organisational etc. factors referred to in the earlier exercise) which are present in the real life situation, one is better able to assess the validity of the decisions per se.

TABLE 1.11

A COMPARISON BETWEEN EDITORS' DECISIONS TO ABSTRACT

BOOKS EDITOR	High priority	Desirable but space would not permit	Inappro-priate	Would need to examine in detail	Total
EDITOR					
High priority	85(58)	7(3)	3(1)	10(5)	105
Desirable but space would not permit	18(9)	12(4)	6(2)	14(5)	50
Inappropriate	4(3)	6(2)	27(0)	11(3)	48
Would need to examine in detail	0(0)	1(1)	0(0)	5(0)	6
Totals	107(70)	26(10)	36(3)	40(13)	209

Figures in brackets = included in SEA

If we consider all those items on which both editors made a decision, the simple differences of opinion (i.e. anything outside the diagonal in Table 1.11) amounted to 37% of cases. Such a

figure fails to take account of the relative 'importance' of items and a more valuable way of looking at the table would be to consider the proportion of one editor's 'high priority' decision with which the other editor agrees. Ignoring books on which either editor needed further information, we see that the Books Editor had 85 out of his 107 high priority books accepted by the General Editor. Similarly the Books Editor accepted 85 out of 95 of the General Editor's high priority books. Again we have no data on performances of other services with which to compare.

Practical steps are now being taken to formulate a detailed statement of selection criteria for books based on a re-examination of those items on which the Editor and the Books Editor failed to agree.

A preliminary examination of the items on which opinions differed, contrasting inclusion/exclusion decisions, might be taken to show a more catholic attitude on the part of the Books Editor towards social foundations (e.g. children and poverty, the future south and higher education, social foundations of education, of educational guidance etc.). Theoretical works tend to be in quite specialised areas (e.g. supervision). Sociological works (e.g. class, occupation and values, social stratification) are less likely to be selected, together with works on certain fringe topics such as delinquency.

By contrast the General Editor would appear to give second priority to a greater range of 'social background' than the Books Editor, sociological works being likely to be either clearly 'in' or definitely excluded, factors of treatment possibly operating here. Factors affecting selection of work on methods of research are similarly not immediately obvious but it is probably true to

say that the Books Editor would prefer a general text (e.g. logic of survey analysis) whatever the level, to the more specialised one preferred by the General Editor (e.g. issues of participant observation) which would perhaps be justified on current interest etc. grounds. The General Editor would perhaps however draw the line on highly technical works (e.g. latent structure analysis).[1]

With regard to consonance of selection from educational journals with editorial policy, since SEA is housed side by side with and has close contacts with a specialist education library, it seemed reasonable to assume that its awareness of relevant educational journals was adequate even if not total. The work with educational journals, therefore, relates merely to consonance with editorial policy in inclusion of items from selected journals.[2]

44 educational journals were covered by SEA in volume 4, six of which were foreign language journals and excluded from this exercise. Of the remainder, fourteen journals were immediately available and were subjected to detailed study. (These fourteen contained two in which there have been problems with regard to supply of the journal to SEA, and two cases of problems (such as resignation) of abstractors.) The journals represented a wide though perhaps not total range of educational thought and research.

---

1. In later comment the General Editor suggested that, in this sample, his non-inclusion of basic research texts could be attributed to their failure to meet quality criteria. As the number of books in this area increases, so boundaries tend to shift.

2. SEA of course does not deal with pedagogy, educational technology, curriculum subjects (except some social science).

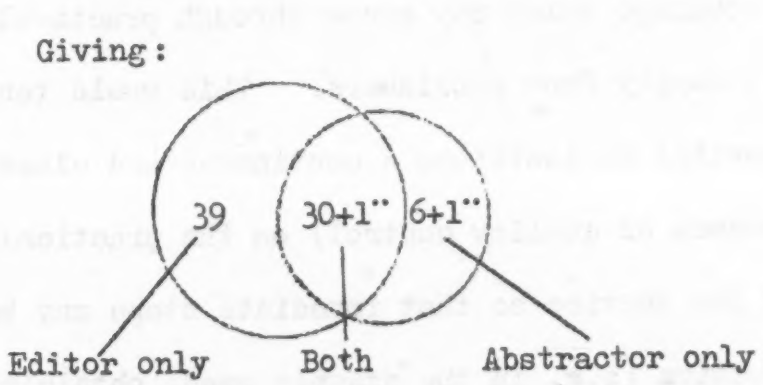
Selected 1968 issues of these journals were scanned and articles appropriate for inclusion in SEA were indicated by the Editor. This selection was then checked against the actual selection made for SEA:

TABLE 1.12

COMPARISON OF EDITOR'S AND ACTUAL SEA SELECTION OF ARTICLES FROM EDUCATIONAL JOURNALS

**	1	2+	3	4	5	6+	7	8	9	10	11	12	13+	14
Total no. of articles in issues scanned	8	113	32	13	22	28	21	12	30	38	13	44	21	37
Selected by:														
Editor only	1	7	3	1	1	4	4	6	4	8	5	2	14	10
Abstractor only	-	-	--	2	1	-	1	1	1"	2	-	-	-	-
Both	1	-	-	3	3	-	2	1	8"	4	3	1	2	2
Neither														2

Giving:



\+ Abstractor etc. problems
" Including one abstract for whole issue

**Key

1	Adult Education	8	Journal of CRAC
2	Child Development	9	Teacher Education
3	Daedalus	10	Journal of Teacher Education
4	Durham Research Review	11	Social & Economic Admin.
5	Education for Teaching	12	Technical Education
6	Forum ...	13	Theory into Practice
7	Educational Review	14	Universities Quarterly

The main discrepancy appears to be that the Editor ideally would wish to see a wider range of material included - this would be expected since his view of the field must accomodate the outer boundaries of the combined views of abstractors. Despite pressure on space the possibility that it might be considered essential to include a selected portion of this wider range of material is not ruled out; this would be possible if highly curtailed abstracts were permitted for a greater amount of the material of a more general nature than is our practice at the moment. A scheme has been devised and put to the Editor for consideration, suggesting principles for differential treatment of this kind and discussing the practical implications (memo available on request).

Another point which comes out clearly from the study is the distortion of coverage which may ensue through practical problems e.g. failure in supply from publishers. This would tend to suggest that it is essential to institute a continuous and close watch (as part of the process of quality control) on the practical details of the running of the service so that immediate steps may be taken to remedy the situation (e.g. in the example used, obtaining a library copy of a missing journal).

Apart from cases in which factors such as these have operated differences of view-point are being examined and this experience will contribute to the detailed formulation of selection criteria.

A preliminary examination of the nature of the additional material which the Editor would have wished to be included suggests that there is a variety of reasons for different decisions on the part of different abstractors. In one or two cases there have been obvious oversights, but the great majority of cases seems to represent a situation in which works on topics of clear immediacy

of interest to the sociologist of education have been excluded for some reason other than relevance of subject matter. For example, articles on compensatory education, quality of education in developing countries, urban education, the Open University, would seem to have been excluded because the treatment is not overtly sociological. In other cases the judgment may be influenced by level of treatment (a journalistic discussion of student power). Another substantial group of items was probably seen as too marginal for inclusion, the slant being too pedagogical (streaming, teaching of anthropology), too psychological (student-teachers' self-perceptions, etc.).

The study of sociological journals took a rather different form from that of the educational journal study. In the case of sociological journals both selection of individual items and adequacy of coverage of sources was felt to need investigation.

Since the Oxford University Department of Educational Studies Library has limited holdings of sociological journals and many such journals are not available for loan in Oxford, there was something of a problem in obtaining the necessary material coupled with the time involved in scanning it. It was decided therefore to base the study on the material abstracted in Sociological Abstracts (SA) as a comprehensive though not perhaps exhaustive coverage of sociological journals and to rely on the abstracts to determine relevance for SEA. (This incidentally provided an opportunity to explore the question of overlap between SA and SEA.)

Issues of SA for the latter half of 1968 were scanned from cover to cover by the Editor (together with February 1969 to test for possible policy changes in the new annual volume), and those items which it was felt should have been abstracted in SEA were

marked. Since the time lag between publication of original and appearance of abstract was known to be much greater than in SEA, these items were checked against the total back file of SEA; a few items published prior to the first issue of SEA in 1965 had to be excluded from the study.

This then gave three sets of references for material relevant to the sociology of education.

a) Deemed appropriate by the Editor and selected by SEA abstractor.

b) Deemed appropriate by SEA abstractor but not selected by Editor.

c) Deemed appropriate by Editor but not selected by abstractor. This set was divided into:

i. Not selected because journal not covered.

ii. Journal covered but item not selected.

The seriousness of the omission was also assessed.

TABLE 1.13

EXTENT OF AGREEMENT BETWEEN EDITOR'S AND ACTUAL SEA SELECTION OF ARTICLES FROM SOCIOLOGICAL JOURNALS COVERED BY SA

	July	Aug.	Oct.	Nov.	Feb.	Total
Selected by Editor and in SEA	5	24	26	0	0	55
Not selected by Editor but in SEA	4	1	11	0	0	16
Selected by Editor but not in SEA	58	53	78	41	64	294
Totals	67	78	15	41	64	365

In order to estimate the extent of discrepancy between editorial and actual selection it was necessary to study reasons for non-inclusion in SEA. The following table shows that in a number of cases the journals containing items not included in SEA were not scanned by SEA:

TABLE 1.14

FACTORS AFFECTING AGREEMENT BETWEEN EDITOR'S AND ACTUAL SEA SELECTION OF ARTICLES FROM SOCIOLOGICAL JOURNALS COVERED BY SA

	July	Aug.	Oct.	Nov.	Feb.	
No. of journals not covered by SEA	27	20	33	12	26	118
No. of journals covered by SEA	10	14	13	7	9	53
No. of articles selected by Editor not in SEA though in journals covered by SEA	9	9	13	5	10	46
No. of SEA abstractors represented	7	8	8	4	6	33
No. of 'important' articles selected by Editor not in SEA though in journals covered by SEA	4	4	8	5	7	28
No. of SEA abstractors represented	3	4	6	4	5	22

(Details of the journals containing relevant material and not covered in SEA were given to the Editor to enable him to take action if he saw fit - a list of those occurring more than twice is available on request - the tail is substantial.)

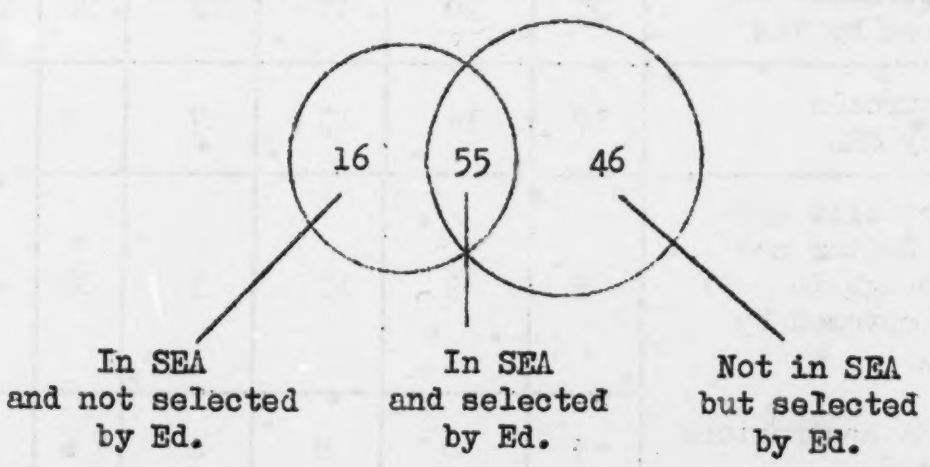
Actual, as opposed to apparent, discrepancy between editorial/abstractors' selection was then seen to be as follows:

TABLE 1.15

REAL DISAGREEMENT BETWEEN EDITOR'S AND ACTUAL SEA SELECTION OF ARTICLES FROM SOCIOLOGICAL JOURNALS COVERED BY SA

	July	Aug.	Oct.	Nov.	Feb.	
Not selected by Editor but in SEA	4	1	11	0	0	16
Selected by Editor and in SEA covered journals but not in SEA	9	9	13	5	10	46
Totals	13	10	24	5	10	62

giving:



A similar situation obtains here as with educational journals, in that it is the function of the Editor in matters of selection, to take a broader view than that of any single abstractor; that this is happening is clearly a healthy situation. Individual titles are being examined and may contribute to the detailed formulation of selection criteria.

A preliminary survey of the additional items 'selected' by the Editor seems to reveal three main kinds of difference. One group of items deals with topics including methodology, which are strictly non-educational but highly relevant (e.g. family and

achievement, sociolinguistics and the disadvantaged, path analysis), together with some more marginal perhaps (e.g. status and social mobility). Another group, whilst dealing explicitly with educational problems, would seem to have been regarded as economic, psychological etc. rather than sociological (e.g. aspirations and performance) and even too education-oriented (e.g. school reorganisation and minority groups). In a third group it would appear that consideration of quality has determined the decision (e.g. universities in the year 2000).

SEA coverage in relation to present use of the literature

The purpose of this part of the investigation was to make item-by-item checks of material actually used or found useful by sociologists of education, or problems actually being investigated by them, for comparison with the coverage of SEA. Similar checks in related services were not considered to be feasible within our resources; a rough measure of overlap only was planned. The point has been made[1] that standard measures of use tend to be unreliable. For instance analyses of library loans records and citations may produce rather different pictures of use. Presence of an item in such records cannot necessarily be assumed to indicate use, nor are all items used necessarily cited in such records. The solution suggested is the complementary use of several measures.

Various types of indicators of use or usefulness were considered:

---

1. e.g. Earle, P. and Vickery, B. Social science literature in the U.K. as indicated by citations. Journal of Documentation, 1969, 25(2), 123-141.

1. Bibliographies of the sociology of education or of aspects of the sociology of education.
2. Library loans records.
3. Course booklists.
4. Citations in writings by sociologists of education.

At a broader level, topics of current interest, as distinct from items actually used, may in theory be analysed from:

5. Textbooks or books of readings.
6. Registers of research.

The problems involved were seen to be:

1. It was in the first place impossible to find a suitable bibliography against which to assess the coverage of SEA. Our requirements were that it should be recent, covering at least a substantial part if not the whole of the field, exhaustive within its scope, and not contaminated by use, on the part of the compiler, of SEA. There was therefore no question of using the method of Martyn and Slater[1] either for assessing our coverage or for comparison with other services.

2. Had the research into the facilities provided by education libraries and their use (see p. 3.32) come to fruition in time, an analysis of loans records would have been extremely valuable. However, such records would probably have related merely to books, would probably not have indicated the particular area of study for which a given work was used, and would not necessarily be a reliable nor a complete record of book use. It was beyond our resources to collect such data, although analysis of data collected

---

1. Martyn, J. and Slater, M. Tests on abstracts journals. Journal of Documentation, 1964, 20(4), 212-234.

by others would have been of some interest.

3. The value of sociology of education course booklists as a check on adequacy of coverage was felt to be debatable. Some lists give merely required reading, others are rather fuller. Lecturers' and tutors' own reading is far from fully represented. Such lists rarely relate to seminar work, special projects etc. in which a range of literature outside that associated with general course work is explored. However it was felt that the lists could be regarded as indicating a minimum level of coverage.

It was known that education librarians intended to collect such lists in connection with the project described on p. 3.32 and it was agreed that the relevant material would be made available to us for checking against SEA. In the event the response rate was rather low (roughly $\frac{1}{3}$) and in many lists the level of work and type of course was unclear, despite a request that this should be indicated. One or two librarians mentioned difficulty in obtaining booklists from lecturers. No detailed check was therefore worthwhile.

4. A citation analysis[1] appeared to be the most feasible approach to a comparison of SEA's coverage with that required by users, despite the disadvantages mentioned earlier. Detailed consideration was given to the most appropriate type of source items. Requirements were that they should represent a reasonable though not necessarily a complete spread of use, should be recent and not contaminated by SEA. Several recently published textbooks are available but were ruled out mainly on contamination grounds. Several recently published readers were unacceptable since the

---

1. This was not intended to be a study of citations (i.e. networks of citations) in the strict sense.

material they contained had been originally published over a period of years and not updated. It was eventually decided to concentrate upon original journal literature.

A problem then was to decide whether to check by item, journal or subject. In view of the difficulty of subject indexing on the basis of limited information it was decided to confine the work to item and journal comparisons. There were in fact two types of assessment we wished to make: a) the extent to which SEA excludes any appropriate material and b) the extent to which it includes inappropriate material. We concentrated upon the former task; it would be unwise to form any conclusions upon the latter point from a study such as this (consultation with users would seem to be the only satisfactory way of investigating this aspect of coverage).

5. The possibility of broadly subject indexing other sources for comparison with the analysis of topics in SEA was considered before any decision was made. The contents of textbooks have been used by others[1] to describe the content of a field of study. This however would be likely to relate to a too general view of the field (possibly limited in scope).

6. An alternative is similar treatment of registers of research in progress. It was impossible in practice to ascertain from the limited information given in most of the sources exactly which work might properly be classed as the sociology of education, and we had little confidence in the completeness of the then available registers. The British Sociological Association

---

1. e.g. Cuadra, C.A. Identifying key contributions to information science. Santa Monica, California, System Development Corporation, 1963.

Register does identify research in the field but is known to be both incomplete and out of date, so that it was not even felt worth-while to analyse the available information in this source.

SEA and use of the literature in teaching the sociology of education

Although our detailed study of course booklists and schemes of study was abortive, a recent survey[1] of sociology of education courses in Colleges of Education provides some of the information we hoped to collect. Lecturers attending a conference on the teaching of sociology of education[2] were questionnaired and their responses relating to the teaching of the subject in education courses (as distinct from its teaching in main sociology courses) were obtained from forty-five colleges. The membership was roughly representative of all colleges teaching sociology of education or education courses since it was by invitation of DES.

Respondents were asked to describe the content of their courses by marking a check list of topics under the following headings:

Basic sociological theory and concepts; sociological methods; the sociology of education; the selective functions of education; social psychology; the sociology of modern Britain; social philosophy.

---

1. Chambers, P. The sociology of education courses (questionnaire and comments). Walsall, West Midlands College, mimeo, 1969.

2. Teaching of sociology of education in Colleges of Education. N 119 DES/ATCDE Course, 8-12 Sept., 1969, Walsall.

The most popular selection and order of presentation of topics was:

1. Sociological theory and method.
2. Socialisation and stratification.
3. Sociology of the school.

Syllabi were also received from 28 Colleges. The most frequently cited topics (in more than 50% of cases) were:

The nature of sociological theory and method; the family; neighbourhood and community; education and social change; the school as an organisation; role theory and the role of the teacher. Individual titles were not analysed, the most preferred general course text books merely were cited.

Various points were raised for discussion. Significant from SEA's point of view is the information that, despite the fact that about one half of the Colleges involve non-sociologists in the teaching of the subject, Colleges are concerned at least as much with the teaching of sociological theory as with its 'educational applications'. It was found also that 'B.ED. studies indicate a slight increase in theoretical orientations in sociology'.

There is no conflict between the range of subjects studied and SEA's coverage, but there is a difference in that beyond its coverage of the sociology of education per se, SEA accords space not merely to sociological theory and method but also to more descriptive non-sociological works and to a range of education 'background' material.

Comparable data for university courses is not available but it seems highly likely that the theoretical bias would be generally as great if not greater than in College of Education education

courses. (This would also probably be true of the teaching of the sociology of education in sociology courses in Colleges of Education.) Whilst some sociology enters incidentally into a range of other education teaching also, this is irrelevant in the context of this discussion, since SEA's function has been defined as serving those concerned with the sociology of education qua sociology of education and not with these people as general educationalists. It seems therefore that any reduction of coverage should relate to non-sociological writing about education.

SEA and the use of the literature in preparation of papers published in scholarly journals.

Information on a more detailed use of the literature than is usually demanded by teaching commitments was derived from a study of citations appended to journal articles. The limitations of citations as an indicator of use have already been discussed.

The source journals were selected to include scholarly journals and journals of prestige (i.e. likely to attract contributions from noted scholars), both British and American, published over the period 1966-8. Journals in certain related areas were necessarily used because of the absence of journals devoted specifically to the sociology of education, with the exception of Sociology of Education.[1] Six further journals were selected, all major sociological or educational journals, four American and four British. Time did not allow a wider sample, and in view of rapid development of the field, it did not seem worthwhile to take longer runs of the journals for our immediate purpose. SEA's Editor identified, consonant with SEA's policy, the source items to be studied in source journals.

---

1. Not however a fully representative sample, since all social science journals would be the total population.

American and British journals were analysed separately, and analysis was by title of journal cited. Additionally, in the case of 1968 issues only, some preliminary slightly more detailed study was introduced. Five more journals from other related fields were analysed, and extra analysis of all journals included: numbers of books, reports and theses cited; differences when a distinction is drawn between a narrow definition of the sociology of education (i.e. material specifically in or on the sociology of education) and a broad definition (i.e. including material relevant to the study of the sociology of education); an item check for inclusion in SEA (i.e. items published since its inception in 1965).

No attempt was made to distinguish between English or English language and foreign items, though this is fairly obvious from journal titles. It is known[1] that social scientists are not heavy users of foreign language literature. The exceptions in the case of our sample are two comparative journals.

The journals concerned were:

	+ in 1968 only
American Journal of Sociology	Sociological Review
American Sociological Review	Educational Research
Comparative Education Review	British Journal of Sociology
Harvard Educational Review	Comparative Education
Journal of Educational Psychology	British Journal of Educational Psychology
Journal of Educational Research	Sociology
Sociology of Education	British Journal of Social and Clinical Psychology

---

1. e.g. Guttsman, W.L. 'The literature of the social sciences and provision of research in them' Journal of Documentation, 1966, 22(3), 186-194.

The following tables in the following discussion show figures for the top journals (cited 10+ times over the three year period.). A full analysis of citations 4+ times and a complete list of 'tail' journals is available on request.

The first question to answer was: what range of journals should SEA a) ideally b) reasonably cover?

It is possible to argue that a service such as SEA should identify 'important' journals (i.e. those containing material to which if relevant, it is likely to be important for the specialist to refer), and thus to which the service should give special attention. Apart from the difficulty of obtaining agreement on 'importance' in this sense, this should strictly involve all journals in which an 'important' article has ever appeared even if once, by some chance, and once only. Also a wide watching brief would have to be kept for current appearance of such items in other journals. Such a notion is thus difficult to apply logically and in practice.

A more helpful notion perhaps is to define importance of journals in terms of productivity. Once measures of productivity are available it is possible to use an agreed measure of frequency of appearance of relevant articles as a guide to the journals to be covered, the measure being fixed subject to the available resources. This however involves the assumption that relevant items drawn from more productive journals will all be appropriate for inclusion, which is not necessarily the case; a measure of selection by quality is probably desirable even amongst subject relevant material. It is further possible to identify amongst excluded journals those likely to produce work of high quality, and in which articles appropriate in subject

matter do occasionally appear. Probably a compromise of this kind is the best arrangement that can be achieved.

Our citation analysis has been based primarily on the measure of frequency of citation, but it does also begin to explore questions of 'importance'.

Citation to journals in American journals gives the following 'top' journals:

TABLE 1.16

CITATIONS (10 AND OVER) TO JOURNAL ARTICLES IN SEA-RELEVANT* ARTICLES IN SELECT RANGE OF JOURNALS

Year of source journal	Cited journals	Number of citations
1966	American Sociological Review	54
	American Journal of Sociology	24
	Sociology of Education	13
	Social Forces	12
	Population Quarterly	11
	Total citation = 190	
	'Top' = 60%	
1967	American Sociological Review	79
	American Journal of Sociology	32
	Sociology of Education	14
	China Quarterly	12
	Journal of Social Issues) Psychological Bulletin)	11
	Journal of Educational Psychology) Journal of Abnormal & Social Psychology)	10
	Total citation = 298	
	'Top' = 60%	
1968	American Sociological Review	93
	American Journal of Sociology	58
	Sociology of Education	22
	Science	19
	Social Forces	14
	American Political Science Review	12
	Harvard Educational Review) Public Opinion Quarterly)	10
	Total citation = 353	
	'Top' = 67%	

* The sociology of education, for SEA's purposes, tends to be rather broadly defined.

It will be seen that the American Sociological Review, American Journal of Sociology and Sociology of Education consistently hold high place, but for the rest there is fluctuation, although the proportion of these amongst all journals cited 4+ times is fairly constant. This is possibly because the sociology of education is a relatively young field and if material cannot find a place in these journals there is no firm order of prestige amongst other journals in the eyes of sociologists of education which may determine the further journals in which they would like to have their work appear.

If a wider range of source journals is considered, or if on either basis the sociology of education is more narrowly defined, the effect is similar:

TABLE 1.17

CITATIONS (10 AND OVER) TO JOURNAL ARTICLES RELATING TO THE SOCIOLOGY OF EDUCATION NARROWLY DEFINED

Year of source journal	Cited journals	Number of citations
1968	In selected range of journals	
	American Sociological Review	55
	American Journal of Sociology	35
	Sociology of Education	21
	Science	14
	Public Opinion Quarterly	10
	Total citation =	216
	'Top' =	60%
1968	In wider range of journals	
	American Sociological Review	74
	American Journal of Sociology	39
	Sociology of Education	26
	Journal of Educational Psychology	19
	Science	14
	British Journal of Sociology) Social Forces)	12
	Journal of Educational Research	11
	Public Opinion Quarterly	10
	Total citation =	315
	'Top' =	65%

TABLE 1.18

CITATIONS (10 & OVER) TO JOURNAL ARTICLES RELATING TO THE SOCIOLOGY OF EDUCATION BROADLY DEFINED

Year of source journal	Cited journals	Number of citations
1968	In selected range of journals	
	American Sociological Review	93
	American Journal of Sociology	58
	Sociology of Education	22
	Science	19
	Social Forces	14
	American Political Science Review	12
	Harvard Educational Review)	10
	Public Opinion Quarterly)	
	Total citations = 353	
	'Top' = 67%	
	In wider range of journals	
	American Sociological Review	115
	American Journal of Sociology	63
	Journal of Educational Psychology	32
	Sociology of Education	27
	Journal of Educational Research)	
	Science)	19
	Social Forces)	
	British Journal of Sociology	14
	Journal of Abnormal & Social Psychology	13
	Harvard Educational Review	12
	Child Development)	
	Congo Magazine)	
	Journal of Marriage and the Family)	10
	Journal of Personality & Social Psychology)	
	Journal of Social Psychology)	
	Total citations = 553	
	'Top' = 71%	

Detailed analysis was in fact made of all 1968 issues of journals cited 4+ times (or a little more than once each year) - it might be argued that coverage of all such journals would be a viable proposition for a service such as SEA. This amounts to some 42 journals. In relation to the total number of items cited however, this means that a considerable number of items are lost by scatter, about 35% for instance in the case of citations appearing in American journals.

If one considers the number of 'quality' journals represented in the residue, without defining quality too closely, there are perhaps 25% journals meriting a watching brief, excluding those 35% already covered by SEA.

The items cited are, of course, not merely recent items. An examination of 1968-cited items dated 1966 onwards shows the following (only 20% of the citations to American Sociological Review, for instance, were of recent date):

TABLE 1.19

% RECENT CITATIONS DATED 1966-1968 IN EACH JOURNAL CITED 10+ TIMES IN 1968

Journals cited	%
Articles narrowly relevant to the sociology of education	
Sociology of Education	62
American Journal of Sociology, Science	42
Journal of Educational Research	36
British Journal of Sociology, Social Forces	25
American Sociological Review	20
Public Opinion Quarterly	10
Journal of Educational Psychology	0
Articles broadly relevant to the sociology of education	
Journal of Personality & Social Psychology	70
Sociology of Education	60
American Political Science Review, Journal of Marriage and the Family	50
Science	45
American Journal of Sociology, Harvard Educational Review	40
British Journal of Sociology, Congo Magazine, Journal of Educational Research	20
American Sociological Review	18
Social Forces	15
Journal of Educational Psychology	13
Public Opinion Quarterly	10
Child Development, Journal of Abnormal & Social Psychology, Journal of Social Psychology	0

The ranking effect remains similar, although some journals carried in 1968 more citations of recent material than others:

TABLE 1.20

% RECENT CITATIONS DATED 1966-68 IN 1968 SOURCE JOURNALS

Source journals	Soc. of ed. narrowly defined	Soc. of ed. broadly defined
American Journal of Sociology	50%	33%
American Sociological Review	28%	25%
Comparative Education Review	23%	42%
Harvard Educational Review	25%	44%
Journal of Educational Psychology	0%	17%
Journal of Educational Research	7%	0%
Sociology of Education	34%	0%

Citations to books in American journals are more frequent than citations to journals - roughly twice as many, whether the boundaries of the source journals or items are narrowed or widened:

TABLE 1.21

COMPARISON OF JOURNALS/BOOKS CITED IN 1968 SOURCE JOURNALS

	Journals	Books
Select range of source journals, narrow definition of relevance	216	429
Select range of source journals, SEA definition of relevance	315	693
Wider range of source journals, narrow definition of relevance	298	570
Wider range of source journals, SEA definition of relevance	553	1111

TABLE 1.22

CITATIONS (JOURNALS/BOOKS) TO RECENT (1966-68) MATERIAL IN 1968 SOURCE JOURNALS

	Journals	Books
Select range of source journals, narrow definition of relevance	74	144
Select range of source journals, SEA definition of relevance	122	140
Wider range of source journals, narrow definition of relevance	86	150
Wider range of source journals, SEA definition of relevance	163	263

There is, however, some variation when citation to recent (1966-68) material only is considered.

Citations in British journals show a different range of 'top' journals.

TABLE 1.23

CITATIONS (10 AND OVER) TO JOURNAL ARTICLES IN SEA-RELEVANT ARTICLES IN SELECT RANGE OF JOURNALS

Year of source journal	Cited journals	Number of citations
1966	British Journal of Educational Psychology	35
	British Journal of Sociology	15
	American Sociological Review	14
	Total citation = 174	
	'Top' = 37%	
1967	British Journal of Sociology	30
	British Journal of Educational Psychology	27
	American Sociological Review	22
	Educational Research	22
	American Journal of Sociology	21
	Universities Quarterly	20
	Harvard Educational Review	17
	Occupational Psychology	17
	Social Forces	15
	Sociological Review	15
	Sociology of Education	14
	Total citation = 306	
	'Top' = 72%	
1968	British Journal of Educational Psychology	48
	Educational Research	21
	American Sociological Review	18
	American Journal of Sociology	14
	British Journal of Sociology	11
	Total citation = 238	
	'Top' = 50%	

American Sociological Review, American Journal of Sociology and Sociology of Education figure as in the American journals studied, but not as prominently or consistently; citations to British journals outrank them. A similar mixture of sociology, education and psychology is found, perhaps slightly less wide-ranging in scope. The highly placed journals are fewer in number and represent a varying proportion of all journals cited 4+ times, but it appears that the pattern may be stabilising.

If the range of journals is extended the effect is similar:

TABLE 1.24

CITATIONS (10 AND OVER) TO JOURNAL ARTICLES RELATING TO THE SOCIOLOGY OF EDUCATION BROADLY DEFINED

Year of source journal	Cited journals	Number of citations
1968	In selected range of journals	
	British Journal of Educational Psychology	48
	Educational Research	21
	American Sociological Review	18
	American Journal of Sociology	14
	British Journal of Sociology	11
	Total citations = 238	
	'Top' = 50%	
1968	In wider range of journals	
	British Journal of Educational Psychology	49
	American Sociological Review	24
	Educational Research	21
	American Journal of Sociology	19
	British Journal of Sociology	15
	Journal of Abnormal & Social Psychology	12
	British Journal of Social & Clinical Psychology	10
	Total citations = 249	
	'Top' = 60%	

However in both a select and a wider range of journals, if the sociology of education is narrowly defined the pattern changes and the range of 'top' journals drastically reduced in number and scope.

TABLE 1.25

CITATIONS (10 AND OVER) TO JOURNAL ARTICLES RELATING TO THE SOCIOLOGY OF EDUCATION NARROWLY DEFINED

Year of source Journal	Cited journals	Number of citations
1968	In selected range of journals	
	British Journal of Educational Psychology	21
	Educational Research	15
	Total citations = 84	
	'Top' = 43%	
1968	In wider range of journals	
	British Journal of Educational Psychology	22
	Educational Research	15
	Total citations = 90	
	'Top' = 40%	

If one looks at the journals cited 4+ times in 1968 British source journals, these number some 24. However, there is a further tail of about 90 journals, representing a scatter of about 42% of the total number of items cited. 25% of the journals concerned might be worth a watching brief, excluding the 45% already covered by SEA.

In terms of recency of citation, the 1968-cited items dated 1966 onwards tend to be relatively few except in the case of Educational Research.

TABLE 1.26

% RECENT CITATIONS DATED 1966-1968 IN EACH JOURNAL CITED 10+ TIMES IN 1968

Cited journals	%
Articles narrowly relevant to the sociology of education	
Educational Research	60
British Journal of Educational Psychology	18
Articles broadly relevant to the sociology of education	
Educational Research	70
British Journal of Social & Clinical Psychology	40
British Journal of Educational Psychology	22
American Journal of Sociology	20
British Journal of Sociology	20
American Sociological Review	0
Journal of Abnormal & Social Psychology	0

This does not seem to be attributable to any particular class of journal amongst source journals:

TABLE 1.27

% RECENT CITATIONS DATED 1966-68 IN 1968 SOURCE JOURNALS

Source journals	Soc. of ed. narrowly defined	Soc. of ed. broadly defined
British Journal of Educational Psychology	25%	25%
British Journal of Social & Clinical Psy.	0%	7%
British Journal of Sociology	0%	15%
Comparative Education	25%	33%
Educational Research	45%	41%
Sociological Review	0%	33%
Sociology	50%	33%

Citations to books in British journals shows a different pattern from that in American journals (half as many journals as books):

TABLE 1.28

COMPARISON OF JOURNALS/BOOKS CITED IN 1968 SOURCE JOURNALS

	Journals	Books
Select range of source journals, narrow definition of relevance	82	81
Select range of source journals, SEA definition of relevance	205	432
Wider range of source journals, narrow definition of relevance	88	108
Wider range of source journals, SEA definition of relevance	249	530

TABLE 1.29

CITATIONS (JOURNALS/BOOKS) TO RECENT (1966-68) MATERIAL IN 1968 SOURCE JOURNALS

Journals	Books
32	18
64	91
36	22
73	103

Numbers of books cited in relation to numbers of journals cited are fluctuating, journal citations sometimes outnumbering citations to books.

Comparison of journals cited by sociologists of education with SEA coverage shows that SEA's journals list might well be extended and indeed action has been taken already on the information derived from this study:

TABLE 1.30

NUMBER OF JOURNALS CITED IN 1968 SOURCE JOURNALS ACCORDING TO FREQUENCY OF CITATION AND INCLUSION IN SEA

	Cited 4+ times	Cited 3- times
British source journals		
Journals covered by SEA or requested	17	36
Journals not covered by SEA	7	53
American source journals		
Journals covered by SEA or requested	25	48
Journals not covered by SEA	17	98

In terms of items cited, SEA's performance is less satisfactory, even on items cited in articles closely relevant to the sociology of education:

TABLE 1.31

RECENT (1966-68)* CITATIONS MADE IN 1968 ARTICLES NARROWLY RELEVANT TO THE SOCIOLOGY OF EDUCATION ACCORDING TO JOURNAL AND INCLUSION IN SEA

Source journal	Total no. citations in '68 articles	Books not in SEA	Books in SEA	Journals not in SEA	Journals in SEA
British					
British Journal Educ. Psychology	30	4	0	4	2
British J. Social & Clinical Psychology	16	0	0	0	0
British Journal of Sociology	0	0	0	0	0
Comparative Education	17	0	0	3	0
Educational Research	160	9	2	23	21
Sociological Review	0	0	0	0	0
Sociology	17	5	0	2	0
Totals	240	18	2	32	23

* 1967-8 in case of books

Source journals	Total no. citations in '68 articles	Books not in SEA	Books in SEA	Journals not in SEA	Journals in SEA
American					
American Journal of Sociology	46	6	0	7	6
American Sociological Review	80	8	0	10	0
Comparative Education Review	144	6	0	12	0
Harvard Educational Review	143	31	5	13	2
Journal of Educational Psychology	0	0	0	0	0
Journal of Educational Research	232	3	0	13	0
Sociology of Education	531	83	8	63	27
Totals	1176	137	13	118	35

It is possible that this is partly due to application of different selection criteria by different abstractors. In the case of journal items, additionally, over 50% of the journals are not covered by SEA and could not be expected to be included. Some of these items deal with general questions of theory or methodology or are clearly introduced to back up a specific point but a number clearly fall within SEA's terms of reference. Action on the 'tail' (i.e. extension of the SEA's journals list) may be expected to reduce this number.

The books fall into the same kinds of categories but the potential range of narrowly relevant items is rather smaller and a higher proportion of the material is of an indirect or more general interest. A small minority of items may represent oversight but, given limited space available for books, it is difficult to see how performance could be greatly improved. It is possible perhaps that some allocation of space as between material of different kinds of relevance might be helpful. SEA's present division of space between books and journal articles appears to

be less in line with the British academic practice of citing many more journals than books than the American practice which is a roughly equal distribution. Reasons for this difference are not clear.

Availability of material in libraries

A recurrent theme amongst users' comments and suggestions is that the service should have regard to the quality of the libraries to which they have access. This may be used as an argument to support conflicting points of view as to the desirability of including certain types of material in SEA. It has not been possible to explore this question in detail, but it may be mentioned that SEA records and describes a not inconsiderable range of material not generally available in libraries.

Roughly 120 journals covered by SEA are available in one or more School etc. of Education library and thus may at least be obtained quickly on inter-library loan. About 100 SEA journals however (mainly non-educational ones - list available on request) are not available in such a library - often an important factor for College of Education Staff. For about half of these no British location could be traced in the British Union Catalogue of Periodicals, about a quarter were only in one or two libraries. It is possible that most will soon be available in the National Lending Library for Science and Technology, which has received a copy of SEA's journals list.

It is SEA's contention that abstracting of such non-available journals is a useful service, although some users see non-availability as an argument for exclusion. They would tend to see the fact that a number of these journals are in foreign languages as strengthening their argument.

With regard to books, the position may well be similar. It has been impossible to check in detail but many libraries are as yet building up their holdings in the sociology of education.

Even a survey[1] of the holdings, in relation to bibliographies on selected topics, of five Schools etc. of Education libraries showed that the average holdings were about 30% of the titles listed in any case.

A comparison of the accessions lists (over 6 months) of two major education libraries with books abstracted in SEA shows that, excluding pedagogy, special education and other largely non-relevant areas, an average of 20% are abstracted in SEA. A number of the items not abstracted in SEA are however highly marginal to SEA's field.

Availability of bibliographical information through bibliographical services other than SEA.

Indexing services are left out of account here since they have a somewhat narrower function. No extensive study of other abstracting services, indeed, has been made, but a formal comparison of SEA coverage with that of three services used heavily for the purposes of the bibliographical enquiry service was felt to be helpful. It would be possible to extend this to services mentioned as used frequently by respondents to our questionnaire on this matter. The three services examined are Sociological Abstracts,[2] Research in Higher Education Abstracts (RHEA), Educational Administration Abstracts (EAA).

Issues of each service for 1968[3] were checked against issues of SEA (span checked depending on dates of items concerned).

---

1. Unpublished.
2. This was incidental to another study, see p. 1.37
3. SA July 1968 - Feb. 1969.

The amount of overlap was as follows:

Items in common with SEA		Total number of items in issues checked
SA	53	4240
RHEA	89	298
EAA	55	753

Five items were abstracted by all four services, fifteen by three of the four.

The great majority of these items are journal articles and the number of journal titles represented is quite small (e.g. in EAA set: journals). 30% of the RHEA abstracts were reprinted from SEA. Apart from this it would seem fair to argue that the overlap is not a matter for serious concern, and in view of the different audiences and abstracting procedures the duplication of effort involved is probably not wasted.

Book reviews in journals regularly scanned are a source of information to which a number of users have referred. Accordingly a study was devised to examine the extent to which books abstracted in SEA fail to receive reviews or note in a range of fairly widely held journals. It was extended to take in sources quite widely used by librarians (the British National Bibliography, the Book Publishing Record, and a variety of publishers' catalogues).

Books noted or ordered for SEA during the period Jan-Mar. 1969 (excluding those already derived from these sources in a previous study, see p. 1.26) were checked against all the sources mentioned above back to July 1968. Publishers' catalogues were those, a wide range, received in the SEA office; the journals concerned were:

American Journal of Sociology

American Sociological Review

British Journal of Educational Psychology

British Journal of Educational Studies

British Journal of Sociology

Comparative Education

Comparative Education Review

Education for Teaching

Educational Research

Educational Review

Harvard Educational Review

New Society

Record

Social Forces

Sociological Review

Sociology

Sociology of Education

Times Educational Supplement

About 120 books were involved and these were traced in the relevant sources as follows (some items represented more than once):

TABLE 1.32

ALTERNATIVE SOURCES OF INFORMATION ABOUT BOOKS ABSTRACTED OR TO BE ABSTRACTED BY SEA

Journals	BNB/BPR	Publishers' catalogues	In none of sources
23	43	48	42

Thus, out of a total of about 150 items, around 25% would not be known but for SEA. (A number of these items are in foreign languages of which we probably became aware on the recommendation of abstractors or through the efforts of the SEA assistant in building up contacts with publishers.) This might represent up to say 20 items per issue, not perhaps of wide interest but otherwise not readily traced.

Implications of findings on coverage

In general the investigation seems to indicate that a relatively high degree of consistency in selection may be achieved by

individuals. With a more detailed brief much of the present inconsistency in decision-making could probably be eliminated. A set of proposed guidelines is in preparation and will be circulated for comment. For some abstractors this will mean extending, for others retracting their boundaries in respect of certain categories of material. Criteria other than subject relevance must clearly be taken into account. The detailed findings of the citation analysis and the views of users now being questionnaired (see Ch. 3) will be taken into account.

In preparation for the quality control needed for the service (whatever its precise form), questions of office organisation, files etc. have been considered and a two stage plan for reorganisation has been evolved. Stage 1 basically will speed up and regularise the flow of material probably with some saving of staff time; stage 2 will enable us to build in and to control alternative treatments of the material without disturbing the general structure of the organisation. Further detail can be given to any who are especially interested in the organisational aspect of the service.

CHAPTER 2

DOCUMENT DESCRIPTION

Present policy

Document description, a rather clumsy term, is used here to indicate that we have been careful not to prejudge the value of the abstract as compared with other forms of description (e.g. purely bibliographical description, broad surveys of the literature or trend reports etc.)

Perhaps one of the most striking features of SEA is the variety of types of abstract to be found within it. The general aim of this aspect of the investigation was to study the effectiveness of our policy; our policy is to regard the individual abstractor in interaction with the material as the best judge of what treatment is appropriate to the material. Just as selection criteria are complex, involving appraisal of qualities of documents other than immediate relevance of subject matter, so the abstracting process is also likely to show something of this complexity. The problem studied is the extent to which similar items receive similar treatment, and the nature of the factors which tend to influence the form and content of the abstract.

A reminder is perhaps needed at this point that SEA's abstractors are academics (sociologists and educationalists) who give up their own time to prepare abstracts for SEA as a

means of serving their colleagues in the field. For this reason the relationship with abstractors has been kept as informal as possible with a complete absence of 'rules' to be observed. A more important reason for not laying down rules was that it was taken as axiomatic when SEA was started that no-one is more competent to abstract the literature of specialists for specialists than specialists.

This assumption is no longer wholly valid for two major reasons:

1. A comparison of the journals covered in volume 1 and those covered at the present time will show that the emphasis is no longer only on literature for specialists.
2. Growth and increasing diversification within the field have tended to blur any common frame of reference.

The approach was similar to that in the concurrent study of coverage. SEA volume 4 and issue 2 of volume 5 were analysed in detail to obtain a general picture of our practice (searching for patterns rather than assessing against predetermined notions of 'model' abstracts). Validity and reliability were investigated in a more detailed study with selected abstractors, using a smaller sample of journal literature (the special problems presented by books have been considered in relation to a few cases which tend to highlight these problems). The possible intervention of organisational factors has also been considered. The user's view is discussed.

Description of abstracts

It is customary to characterise abstracts along the continuum annotation/indicative/informative/extended abstract or digest. We have found this to be inadequate for our purposes. Such terms seem in the main to be related to the length of the description, despite the apparent reference to the kind of guidance given to the user in assessing the potential usefulness of a document.

Length is only one dimension of a document description. An abstract may also be described in terms of concreteness, specificity, shape, balance and structure.

The more measureable features, which were coded in the analysis of SEA volume 4, were the following:

1. Whether the description identifies the nature of the subject matter, or deals with the actual ideas set down by the author <u>about</u> his subject or theme (i.e. level of abstraction).
2. Whether the general topic or the general theme are stated merely, or whether the various headings under which a topic is treated or the steps in the development of a theme, (the thesis) are specified (i.e. degree of detail).
3. Whether the original sequence of ideas is preserved.
4. Whether the structure of ideas is indicated (i.e. the major diversions of thought indicated by chapters, headings, verbal clues etc.) and in how much detail.

(The full codes are given in appendix D)

The description of an abstract is not of course meaningful without reference to the original. What one is concerned

with is not for instance the length of abstract, but the degree of reduction. Length, structure, degree of detail etc. are all influenced by factors such as density of ideas, conciseness of expression, amount of 'padding', novelty of the concepts used and so on, in the original. Such features as these are virtually impossible to codify but were raised in the study with abstractors. In the broad analysis the following were taken into account:

1. Length of document.
2. Whole or part of document.
3. Form of document (textbook, reader, monograph etc.).
4. a) Country of publication, b) language.
5. Author's treatment of subject (descriptive, theoretical etc.).
6. Perspective (e.g. educational, sociological).

Coding was done both by a sociologist and a librarian, and codings were compared. Rules for 'difficult cases' were agreed and after a period of several weeks each recoded all the documents and after comparison the remaining discrepancies (about 5%) were finally eliminated.

In formulating the codes we had very much in mind the different ways in which an abstract might be used as a guide to the original, and in applying them we attempted to put ourselves in the position of the user. For instance in considering degree of detail we asked ourselves questions such as: does the abstract leave important questions about the document unanswered? We considered three main levels of use:

1. Enabling the user to discard or pass over non-relevant documents.
2. Enabling him to identify those probably relevant.
3. Enabling him to discriminate almost as finely and accurately as between original documents, were they available for detailed examination.

This exercise was helpful also in that there was occasion to refer to the abstracts in various ways - scanning, detailed reading etc. This has given us experience of the ways in which features of style, presentation and so on can help or hinder the user. SEA has probably never been subjected to such intensive and extensive use by any user and we have felt it worthwhile to offer the researcher's subjective impressions as a 'user'.

In 'using' SEA for the purposes of this analysis accuracy of representation has been found to be the quality most essential in the abstract. This does not necessarily mean in the SEA context a uniform relationship between abstract and original. In, for instance, degree of reduction, it may be misleading if an extended descriptive work receives the same detailed treatment as the report of an extended piece of empirical research. Works of partial relevance would be inappropriately treated if there were uniform degree of reduction throughout, but this is plainly essential in the case of wholly relevant works.

The abstract may present two kinds of images of the original - a photographic image and an impressionistic view of

it, the specialist's view. Ideally we believe it should do both - should convey both what a document objectively is, and, where there is no one-to-one relationship between document and user, how the specialist views it (i.e. how the user would view it had he the actual document before him rather than merely an abstract of it). Despite the dangers of misinterpretation, etc., it has been felt that if the service is to save the time of the user SEA must also attempt this latter function.

Specific characteristics of SEA abstracts[1]

Detailed tables are available on request. The general picture is as follows.

With regard to length of abstract a similar pattern obtains in all the issues studied. 6 - 10 lines (of print) or about 70 - 120 words is most common (30 - 40% of cases). There is also a not inconsiderable number of shorter abstracts of 3 - 5 lines or about 40 - 70 words (ranging from 10 - 20% per issue). Abstracts of 11 - 20 lines (120 - 240 words) represent about 30 - 35% in three issues, though dropping to 15% in the last issue.

---

1. This account relates to volume 4. A comparison with volume 5, to test for recent changes in practice is also being prepared and will be included in the final report.

TABLE 2.1

LENGTH OF SEA ABSTRACTS

	No. of lines in abstract										
	1-2	3-5,	6-10	11-15	16-20	21-25	26-30	31-35	36-40	40+	Total
Vol. 4 issues											
(1)	1	28	72	52	13	7	6	6	1	0	186
(2)	6	37	57	45	22	14	6	4	2	0	193
(3)	5	36	76	34	16	6	6	2	1	3	185
(4)	15	19	59	42	17	8	3	5	0	1	169
Total	27	120	264	173	68	35	21	17	4	4	733

The balance between short papers, long papers (1 - 5 and 5 - 25 pages), short monographs (26 - 100 pages) and longer monographs (100 + pages) is roughly similar in each of these categories, although short papers tend towards short abstracts and long monographs toward the longer abstract as would be expected.

With regard to the structure[1] of our abstracts (e.g. indication of points at which new chapters begin) our practice shows no clear pattern from issue to issue, though there is less variance in treatment of books than of journals. Overall we tend most towards non-structured abstracts and least towards those bearing a close formal relationship with the original, but non-structured abstracts are devoted largely to journals. Book abstracts tend at least to rough-group though not to indicate in detail the structuring of contents of the original.

---

1. The visible presence of the original structure is not a sine qua non of a 'good' abstract. An accepted style of presentation of information (as in research reports), the logic of the argument (as in some theoretical work) etc. may render it strictly superfluous, but nevertheless it would still seem to have a function even as no more than a time-saving and place-finding device in a dense expanse of print.

TABLE 2.2

STRUCTURE OF SEA ABSTRACTS

	Non-formal	Informal	Semi-formal	Formal	Totals
Vol.4					
(1)	79 (8)	25 (6)	61 (34)	21 (7)	(55) 186
(2)	59 (11)	38 (17)	58 (35)	36 (9)	(72) 191
(3)	58 (4)	54 (22)	39 (22)	34 (8)	(56) 185
(4)	62 (5)	32 (18)	38 (19)	37 (9)	(51) 169
Total	258 (28)	149 (63)	196 (110)	128 (33)	(234) 731

(books alone in brackets)

It was expected that the longer the abstract the more detailed would be the organisation of its contents and the more apparent this would be. Length however is by no means clearly associated with visible structure, although over the four most used lengths (3 - 5, 6 - 10, 11 - 15, 16 - 20 lines) there is a predominance of non-structured abstracts in the 3 - 5 category and of fully 'guided' abstracts in the 16 - 20 line category. Beyond 20 lines some guiding is found but the pattern is not as clear cut as expected.

TABLE 2.3

STRUCTURE OF SEA ABSTRACTS IN RELATION TO LENGTH

Structure	1-2	3-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40	40+	Total
Non-formal	25(2)	67(6)	114(6)	44(8)	3(0)	4(3)	-	-	-	-	257
Informal	2(2)	23(8)	63(23)	26(8)	14(7)	10(3)	3(0)	7(5)	-	-	148
Semi-formal	-	20(7)	57(24)	63(37)	26(21)	14(12)	8(6)	6(6)	1(1)	-	195
Formal	-	6(0)	33(12)	40(8)	25(5)	5(0)	10(3)	5(3)	2(2)	3(1)	129
Total	27(4)	116(21)	267(65)	173(61)	68(33)	33(18)	21(9)	18(14)	3(3)	3(1)	729

Figures in brackets are for books alone

This is not to say that the order of presentation does not follow that of the original; 50% of the items in volume 4 were examined from this point of view and it was found that in the great majority of cases abstracts followed the original quite closely. In a large number of cases however the balance of the original was not preserved exactly (this is discussed in more detail later). 'Disturbance of balance' is virtually impossible to quantify but plainly without some indication of structure the user might well under- or over-estimate the amount of information in an original to which some part of the abstract refers. This kind of situation can lead either to information loss or to complete waste of time in turning up the original.[1]

The factors so far considered relate to the form of the abstract (length and structure). With regard to content the major factors studied in detail may be summed up as 'level of abstraction' and degree of generality.[2]

---

1. In two extreme cases a single sentence in a medium length abstract referred to a single-sentenced 'aside' in a longish journal article - no justification could be seen.

2. May be coded as:

T(G)
T(D)
T(G), E(G)
T(G), E(D)
T(D), E(G)
T(D), E(D)
E(G)
E(D)

Where:

T = TOPIC (Statement of what topic(s) or aspects of topic(s) are dealt with)

E = EXPOSITION (Summary of author's exposition of his topic)

and (referring to overall level of detail and ignoring individual variations amongst abstracts):

(G) = GENERAL (Broad statement(s) of contents at the level of a well chosen title)

(D) = DETAILED (Any more detailed description)

Broadly, the abstractor may:

1. State which topic or area (within the universe of topics or study areas potentially of interest to users) the author deals with or is working in.

(T(G) = general statement of topic)

2. State the topic and indicate what aspects of the topic are dealt with.

(T(D) = detailed statement of topic)

Alternatively the abstractor may:

1. State the nature of the main theme or thesis the author expounds.

(E(G) = general exposition)

2. Follow the development of the argument in detail.

(E(D) = detailed exposition)

A statement of both topic and exposition may be appropriate (T/E), and either may be general or detailed ((G) or (D)). Thus we arrive at a set of eight categories.

Graphs of distribution over these categories in SEA volume 4 shows there is little similarity of pattern in the various issues. Overall about 57% are devoted to abstracts of a 'mixed' (T+E) type, 23% deal with topic alone and 20% exposition alone. Books are roughly equally divided between 'mixed' and 'topic alone' abstracts, about half the mixed ones including a detailed presentation of exposition. Those who claim that the majority of SEA's book abstracts are 'only lists of contents' are not too far from the truth. About 15% of all abstracts, and about 10% of the book abstracts, were purely general in character.

TABLE 2.4

LEVEL OF ABSTRACTION AND DEGREE OF GENERALITY OF SEA ABSTRACTS, BY ISSUE

	T(G)*	T(D)	T(G) E(G)	T(G) E(D)	T(D) E(G)	T(D) E(D)	E(G)	E(D)	TOTAL
	1	2	3	4	5	6	7	8	
Vol. 4									
(1)	6(1)	18(13)	15(5)	43(11)	25(18)	26(8)	1(0)	51(2)	185
(2)	11(5)	45(30)	24(6)	33(9)	17(7)	35(16)	0(0)	26(2)	191
(3)	14(4)	37(24)	18(3)	44(6)	12(4)	23(8)	2(0)	32(0)	182
(4)	9(2)	31(23)	9(0)	27(3)	10(6)	50(16)	3(0)	28(2)	167
Total	40(12)	131(90)	66(14)	147(29)	64(35)	134(48)	6(0)	137(6)	725

Figures in brackets are for books alone

* See page 2.12

TABLE 2.5

LEVEL OF ABSTRACTION AND DEGREE OF GENERALITY OF SEA ABSTRACTS
IN RELATION TO LENGTH OF ORIGINAL

Length of original in lines	T(G)	T(D)	T(G)E(G)	T(G)E(D)	T(D)E(G)	T(D)E(D)	E(G)	E(D)	TOTAL
0-5	13(1)	10(0)	14(0)	23(0)	1(0)	10(0)	2(0)	17(0)	90(1)
6-10	12(0)	5(0)	16(0)	40(0)	6(1)	27(0)	2(0)	46(0)	154(1)
11-15	6(1)	11(1)	8(1)	28(1)	10(1)	23(0)	-	36(0)	122(5)
16-20	2(0)	11(2)	7(2)	15(0)	4(1)	15(0)	1(0)	21(0)	76(5)
21-25	-	2(0)	3(0)	9(0)	1(0)	7(1)	-	8(1)	30(2)
26-50	1(1)	8(2)	2(0)	7(3)	6(3)	4(1)	-	6(1)	34(11)
51-100	-	12(10)	2(0)	6(6)	8(5)	6(6)	-	2(1)	36(28)
100+	9(9)	73(73)	10(9)	20(20)	27(27)	44(44)	-	3(3)	186(185)
Total	43(12)	132(88)	62(12)	148(30)	63(38)	136(52)	5(0)	139(6)	728(238)

Figures in brackets are for books alone

TABLE 2.6

SUMMARY OF TABLE 2.5

	T(G)	T(D)	T(G) E(G)	T(G) E(D)	T(D) E(G)	T(D) E(D)	E(G)	E(D)
0-25	13	10	14	23	1	10	2	17
26-100	21	49	38	105	35	82	3	119
100+	9	73	10	20	27	44	0	3

Emerging Patterns

Next, the documents handled by SEA were considered from various points of view, and in each case an attempt was made to identify characteristics of abstracts commonly associated with particular features of documents. Features of originals studied were:

1. treatment of subject (empirical, theoretical etc.)
2. discipline orientation (sociological, social-psychological, economic etc.)
3. form (journal articles/books (readers, textbooks etc.)).

Treatment

Whilst in general abstracts of all types of material cluster around 6 - 10 lines in length, theoretical material most often receives 11 - 15 lines, no doubt because such material cannot always be summarised shortly and concisely. A substantial proportion of the empirical studies also (58%) received more than 10 lines, perhaps because of those cases where remarks about methodology were extensive. Purely

descriptive writing received nearly as many 3 - 5 as 6 - 10 line abstracts. Discussions of current educational problems also received, as well as 6 - .10 line abstracts, a fair number of 3 - 5 and rather more 11 - 15 line abstracts. This probably varied to a certain extent with rigour of argument. The amount of historical material is not great but abstracts clustered both around 6 - 10 and 16 - 20 lines. Possibly different treatment is accorded to descriptive and quasi-empirical work in this category (it was realised that to a point 'historical' cut across other categories) but also books represented most of the 16 - 20 line category.

(For table see overleaf.)

With regard to <u>level of abstraction</u> and <u>degree of generality</u>, theoretical and historical material are both fairly evenly distributed over all categories. Detailed exposition, even if not detailed statement of problem , tends to be accorded empirical studies. Descriptive material attracts a large number of detailed statements of contents. Discursive items have a considerable number of such abstracts but an almost equal number of abstracts giving a detailed statement of exposition (nearly 25%). The latter type is characteristic of a fair proportion of polemical items (50%). (For table see p.2.18).

The presence of visible <u>structure</u> in an abstract was thought likely to be influenced by the nature of treatment of subject. In the case of theoretical, descriptive, discursive and polemical material between 40% and 50% of the abstracts tend not to be structured in any way. The pattern for empirical studies is rather different, with all but 20% of the

TABLE 2.7

EFFECT OF TREATMENT OF SUBJECT
IN ORIGINAL ON LENGTH OF SEA ABSTRACT.

Length of abstract in lines	Theoretical	Empirical	Descriptive	Discursive	Polemical	Historical	Mixed	Total
1-2	1 (0)	2 (0)	10 (2)	9 (1)	2 (1)	3 (0)	-	27 (4)
3-5	8 (2)	24 (1)	34 (7)	39 (6)	9 (2)	1 (0)	1 (1)	116 (19)
6-10	9 (3)	82 (11)	36 (11)	110 (34)	17 (2)	8 (1)	7 (4)	359 (66)
11-15	12 (4)	73 (13)	14 (6)	55 (27)	10 (2)	4 (4)	2 (1)	170 (57)
16-20	2 (0)	34 (9)	10 (5)	9 (7)	3 (1)	7 (6)	2 (2)	67 (30)
21-25	1 (1)	15 (6)	2 (2)	14 (12)	-	1 (1)	-	33 (22)
26-30	1 (1)	12 (4)	2 (2)	2 (2)	2 (2)	3 (2)	-	22 (13)
31-35	-	8 (7)	-	5 (4)	2 (2)	4 (4)	-	19 (17)
36-40	-	1 (1)	1 (1)	1 (1)	-	-	-	3 (3)
40+	-	3 (1)	-	-	-	-	-	3 (1)
Total	34 (11)	254 (53)	109 (36)	244 (94)	45 (12)	31 (18)	12 (8)	819 (232)

Figures in brackets are for books alone

TABLE 2.8

EFFECT OF TREATMENT OF SUBJECT IN ORIGINAL ON LEVEL OF ABSTRACTION AND DEGREE OF GENERALITY IN SEA ABSTRACTS.

Treatment	T(G)	T(D)	T(G)E(G)	T(G)E(D)	T(D)E(G)	T(D)E(D)	E(G)	E(D)	TOTAL
Theoretical	2(0)	5(4)	6(2)	5(3)	5(2)	3(0)	-	7(0)	33(11)
Empirical	2(0)	6(5)	13(1)	85(12)	21(7)	76(22)	2(0)	48(2)	253(49)
Descriptive	17(3)	40(25)	9(0)	12(3)	11(5)	6(1)	2(0)	14(0)	111(37)
Discursive	14(6)	65(45)	29(8)	26(4)	20(15)	35(15)	-	63(3)	252(96)
Polemical	2(1)	2(0)	6(1)	10(3)	4(3)	6(3)	2(0)	13(1)	45(12)
Historical	2(1)	6(4)	1(0)	7(4)	4(3)	8(7)	-	2(0)	30(19)
Mixed	1(1)	7(7)	2(2)	2(0)	-	-	-	-	12(10)
Total	40(12)	131(90)	66(14)	147(29)	65(35)	134(48)	6(0)	147(6)	736(234)

Figures in brackets are for books alone

99 666

relevant abstracts having at least some visible structure. Also the other categories of material have a very low proportion of fully structured abstracts whereas 40% of these for empirical studies are detailed 'section-by-section' abstracts. SEA has a standard pattern for research reports, often though not invariably used, which accounts for this difference. Historical material was accorded no such abstract, but 'mixed' material (in which different approaches are used in different sections of a work e.g. in books of readings) tended to have highly structured abstracts. (For table see overleaf.)

Discipline orientation

To a point discipline orientation is associated with treatment, some disciplines becoming much more 'scientific' than others. It is interesting for instance to see that with regard to length of abstract a pattern similar to that for 'description' and 'discussion' is found for instance in education, and in educational administration (abstracts of 3 - 10 lines), whereas the theoretical/empirical pattern (11 - 15 lines) is characteristic of the sociology, economics and social psychology of education, and of sociology per se. Rigour of treatment and quality rather than degree of relevance are perhaps the decisive factors, since, for example, a 'general discussion' may be good of its kind, and if closely argued may need more detailed treatment. (For table see p.2.21 .)

With regard to level of abstraction and degree of generality (see p.2.12) the following attract detailed statements of either topic or exposition, or 'mixed' types of abstract including a detailed statement of exposition: sociology of education, economics of education, and 'pure' sociology.

TABLE 2.9

EFFECT OF TREATMENT OF SUBJECT IN ORIGINAL

ON STRUCTURE OF SEA ABSTRACT

Structure	THEORETICAL	EMPIRICAL	DESCRIPTIVE	DISCURSIVE	POLEMICAL	HISTORICAL	MIXED	TOTAL
Non-formal	16 (7)	59 (8)	44 (3)	106 (7)	24 (3)	8 (0)	1 (0)	258 (28)
Informal	5 (0)	38 (9)	26 (14)	60 (32)	12 (4)	5 (3)	3 (1)	149 (63)
Semi-formal	10 (5)	63 (27)	32 (16)	61 (40)	8 (4)	18(15)	4 (3)	196 (110)
Formal	1 (1)	97 (8)	8 (4)	17 (15)	1 (1)	-	4 (4)	128 (33)
Total	32 (13)	257 (52)	110 (37)	244 (94)	45 (12)	31 (18)	12 (8)	731 (234)

Figures in brackets are for books alone

TABLE 2.10

EFFECT OF DISCIPLINE ORIENTATION ON
LENGTH OF SEA ABSTRACTS

Length of abstract in lines	1*	2	3	4	5	6	7	11	12	13	Total
1-2	5(1)	2(0)	1(0)	1(0)	2(1)	3(0)	1(0)	1(0)	9(2)	1(0)	26(4)
3-5	19(6)	16(1)	17(1)	8(2)	-	15(3)	1(0)	5(2)	28(2)	2(1)	111(18)
6-10	57(13)	39(9)	41(6)	10(1)	4(2)	32(8)	3(1)	19(5)	34(13)	11(3)	250(61)
11-15	36(9)	12(3)	44(6)	5(0)	2(0)	10(5)	5(4)	26(17)	14(5)	10(2)	164(51)
16-20	10(2)	8(4)	12(4)	2(0)	-	4(1)	2(1)	7(4)	9(3)	4(2)	58(21)
21-25	7(5)	3(2)	9(2)	1(0)	-	4(4)	1(1)	1(1)	7(6)	1(1)	34(22)
26-30	5(3)	3(2)	6(2)	-	2(2)	2(2)	1(1)	1(0)	1(1)	-	21(13)
31-35	4(3)	2(2)	3(3)	-	1(1)	1(1)	3(3)	1(0)	-	2(2)	17(15)
36-40	-	-	-	-	-	1(1)	-	1(1)	1(1)	-	3(3)
40+	-	-	3(1)	-	-	-	-	-	-	-	3(1)
Total	143(42)	85(23)	136(25)	27(3)	11(6)	72(25)	17(11)	62(30)	103(33)	31(11)	687(209)

Figures in brackets are for books alone

* See Appendix D code for column k.

Social psychology of education attracts especially abstracts containing a detailed exposition; the psychology of education and 'pure' social psychology tend towards detailed exposition alone. In education and educational administration, the other sizeable categories, there is a spread of all those types of abstract. (Table overleaf.)

Form of document

In length of abstract, reviews of the literature and conference report abstracts tend to cluster round 6 - 10 lines. Books of readings and textbooks attract, more or less equally, abstracts of 6 - 10 and 11 - 15 lines. Scholarly studies and general discussions received a substantial number of 16 - 20 and 3 - 5 line abstracts respectively. The pattern is broadly the same for books and journal articles with the exception that 'scholarly' books cluster round 16 - 20 and 'scholarly' papers round 11 - 15 lines. (For table see p.2.24.)

With regard to level of abstraction and degree of detail, with the exception of 'scholarly studies', general discussions' and critiques, abstracts for all forms tend to take the form of a detailed statement of contents. The most used categories for 'scholarly studies' are: detailed statement of exposition together with either a general or detailed statement of topic (T(G)E(D) or T(D)E(D)), or a detailed statement of exposition only (E(D)), each of which accounts for about a quarter of the relevant abstracts. 'General discussions' and critiques are distributed over all categories except 'E(G)'.

Taking books and journals separately it may be surprising to find 40% of book abstracts offer a detailed statement of

TABLE 2.11

EFFECT OF DISCIPLINE ORIENTATION ON LEVEL OF ABSTRACTION AND DEGREE OF GENERALITY OF SEA ABSTRACTS.

	Sociol. of ed.	Econ. of ed.	Social psych. of ed.	Psych. of ed.	Pol. of ed.	Total
T(G)	9(4)	7(1)	2(1)	1(1)	2(1)	21(8)
T(D)	25(16)	19(9)	8(5)	-	2(1)	54(31)
T(G)E(G)	12(2)	7(0)	11(3)	3(0)	1(0)	34(5)
T(G)E(D)	32(8)	15(1)	47(4)	7(0)	2(2)	103(15)
T(D)E(G)	6(4)	7(3)	9(4)	-	-	22(11)
T(D)E(D)	29(8)	13(7)	37(8)	5(0)	3(2)	87(25)
E(G)	-	1(0)	-	2(0)	-	3(0)
E(D)	29(0)	18(0)	23(1)	10(0)	1(0)	81(1)
Total	142(42)	87(21)	137(26)	28(1)	11(6)	405(96)

	Ed. admin.	Social hist. of ed.	Anthropol. and ed.	Ed. research	Total
T(G)	5(0)	1(1)	-	-	6(1)
T(D)	17(9)	6(4)	1(0)	2(2)	26(15)
T(G)E(G)	6(2)	3(2)	3(0)	2(0)	14(4)
T(G)E(D)	8(1)	3(3)	-	2(1)	13(55)
T(D)E(G)	11(8)	1(1)	3(2)	1(1)	16(12)
T(D)E(D)	8(4)	5(2)	-	-	13(6)
E(G)	-	-	-	-	0(0)
E(D)	17(1)	1(0)	-	-	18(1)
Total	72(25)	20(13)	7(2)	7(4)	106(44)

	Social science (general) and ed.	Sociol.	Ed.	Social psych.	Total
T(G)	-	3(0)	13(2)	1(0)	17(2)
T(D)	4(4)	14(12)	20(11)	7(6)	45(33)
T(G)E(G)	-	5(2)	8(0)	1(0)	14(2)
T(G)E(D)	2(2)	12(5)	10(1)	5(2)	29(10)
T(D)E(G)	1(1)	9(5)	12(6)	1(0)	23(12)
T(D)E(D)	2(0)	11(6)	12(7)	6(3)	31(16)
E(G)	-	-	3(0)	-	3(0)
E(D)	1(0)	11(0)	15(2)	11(1)	38(3)
Total	10(7)	65(30)	93(29)	32(12)	200(78)

Figures in brackets are for books only.

TABLE 2.12

EFFECT OF FORM OF ORIGINAL
ON LENGTH OF SEA ABSTRACT

Length of abstract in lines	Readings	Conf. papers	Ref. books	Off. reports	Text books	Total
1-2	1(1)	3(1)	-	-	-	4(2)
3-5	6(4)	2(2)	-	-	7(7)	15(13)
6-10	14(14)	7(7)	2(1)	-	15(15)	38(37)
11-15	12(10)	3(2)	-	-	15(14)	30(26)
16-20	4(4)	2(1)	-	-	3(3)	9(8)
21-25	2(2)	2(2)	-	2(2)	1(1)	7(7)
26-30	-	1(1)	-	1(1)	-	2(2)
31-35	-	-	-	-	-	0(0)
36-40	-	-	-	-	-	0(0)
40+	-	-	-	-	-	0(0)
Total	39(35)	20(16)	2(1)	3(3)	41(40)	105(95)

Length of abstract in lines	Pract. guides	Gen. background	Reviews of the lit.	Bibliogs.	Total
1-2	1(0)	2(0)	-	1(0)	4(0)
3-5	4(2)	4(0)	7(2)	-	15(4)
6-10	5(5)	5(3)	12(2)	2(2)	24(12)
11-15	3(3)	5(5)	3(2)	1(0)	12(10)
16-20	-	1(0)	3(3)	-	4(3)
21-25	-	-	-	-	0(0)
26-30	1(1)	-	1(1)	-	2(2)
31-35	1(1)	-	-	-	1(1)
36-40	-	-	-	-	0(0)
40+	-	-	-	-	0(0)
Total	15(12)	17(8)	26(10)	4(2)	62(32)

Length of abstract in lines	Schol. monographs	Trend reports	Critiques	Proposals	Total
1-2	9(1)	6(0)	2(0)	1(1)	18(2)
3-5	59(4)	23(0)	5(1)	3(0)	90(5)
6-10	154(11)	35(4)	3(0)	1(0)	193(15)
11-15	117(21)	12(3)	1(0)	1(1)	131(25)
16-20	44(14)	10(6)	-	-	54(20)
21-25	20(9)	5(4)	1(0)	-	26(13)
26-30	13(4)	4(3)	-	-	17(7)
31-35	16(14)	1(1)	-	-	17(15)
36-40	1(1)	2(2)	-	-	3(3)
40+	3(1)	-	-	-	3(1)
Total	436(80)	98(23)	12(1)	6(2)	552(106)

Figures in brackets are for books alone

topic alone, although about 20% are fully detailed. This is perhaps the effect of having to choose between a very long abstract to do the work justice or merely stating what it is about. (For table see overleaf)

As to <u>structure</u> of abstract, most abstracts of whole books tend to have some sign-posting (90%) though in the minority of these (16%) this is not a detailed chapter-by-chapter treatment. Abstracts relating to specific chapters of books only, like journal articles, have a much higher proportion of unstructured abstracts (55% and 46% respectively), but a fair number of journal articles (23%) are also structured in detail. (For table see p.2.27.)

'Unstructured' journal abstracts are partly accounted for when structure is considered in relation to the amount of detail; 24% received merely a title-like form of description and in a further 36% of cases abstracts took the form of a detailed exposition of the author's argument, where points might be expected to be presented as a single sequence rather than grouped under headings. Fine distinctions as to the amount and type of detail could not satisfactorily be made and thus it is not possible to relate further emphasis on structure to further degrees of detail. (For table see p.2.28.)

There appears to be no other particular pattern except that over all categories, except general background, literature reviews, critiques and bibliographies, and reports, the number of abstracts in which there is some but not detailed structuring outnumber those structured in detail and those not structured at all. However, in the case of books of readings, detailed structure is nearly always to be found; in all other categories absence of structure is more common. (For table see p.2.29.)

TABLE 2.13

EFFECT OF FORM OF ORIGINAL ON LEVEL OF ABSTRACTION AND DEGREE OF GENERALITY

	Readings	Conf. papers	Ref. books	Off. reports	Text books	Total
T(G)	5(3)	2(2)	-	-	4(4)	11(9)
T(D)	25(23)	10(8)	1(1)	-	24(24)	60(56)
T(G)E(G)	3(3)	2(1)	-	-	1(1)	6(5)
T(G)E(D)	2(2)	1(1)	-	1(1)	-	4(4)
T(D)E(G)	3(2)	3(3)	-	-	8(8)	14(13)
T(D)E(D)	2(2)	1(1)	-	2(2)	2(2)	7(7)
E(G)	-	-	-	-	-	0(0)
E(D)	-	1(0)	-	-	1(0)	2(0)
Total	40(35)	20(16)	1(1)	3(3)	40(39)	104(94)

	Pract. guides	Gen. background	Reviews of the lit.	Bibliogs.	Total
T(G)	1(0)	3(0)	1(1)	1(0)	6(1)
T(D)	9(8)	4(0)	9(5)	3(2)	25(15)
T(G)E(G)	1(1)	1(0)	5(1)	-	7(2)
T(G)E(D)	2(2)	2(2)	3(2)	-	7(6)
T(D)E(G)	-	2(2)	3(2)	-	5(4)
T(D)E(D)	2(2)	3(2)	3(0)	-	8(4)
E(G)	1(1)	-	-	-	1(1)
E(D)	-	2(1)	2(1)	1(0)	5(2)
Total	16(14)	17(7)	26(12)	5(2)	64(35)

	Schol. monographs	Trend reports	Critiques	Proposals	Total
T(G)	10(1)	12(0)	2(0)	2(1)	26(2)
T(D)	29(10)	20(7)	1(1)	1(0)	51(18)
T(G)E(G)	36(5)	9(3)	4(0)	1(0)	50(8)
T(G)E(D)	116(17)	17(3)	5(1)	-	138(21)
T(D)E(G)	25(11)	17(7)	1(1)	-	43(19)
T(D)E(D)	104(34)	14(6)	2(0)	1(1)	121(41)
E(G)	3(0)	1(0)	-	1(0)	5(0)
E(D)	111(4)	16(2)	1(0)	1(0)	129(5)
Total	434(82)	106(27)	16(3)	7(2)	563(114)

(Figures in brackets are for books alone)

TABLE 2.14

EFFECT OF PART OF ORIGINAL ABSTRACTED ON STRUCTURE OF SEA ABSTRACT

Structure of abstract	Book	Particular theme or part in book	Chapter of book	Total
Non-formal	24	2	52	78
Informal	61	4	16	81
Semi-formal	111	2	23	136
Formal	32	-	2	34
Total	228	8	93	329

Structure of abstract	Journal issue	Journal article	Particular theme or part in journal article	Total
Non-formal	1	179	-	180
Informal	7	61	1	69
Semi-formal	1	57	-	58
Formal	3	92	-	95
Total	12	389	1	402

TABLE 2.15

LEVEL OF ABSTRACTION AND DEGREE OF GENERALITY

IN RELATION TO STRUCTURE OF SEA ABSTRACTS

Structure	T(G)	T(D)	T(G)E(G)	T(G)E(D)	T(D)E(G)	T(D)E(D)	E(G)	E(D)	Total
Non-formal	29(3)	18(5)	40(5)	42(6)	11(3)	25(4)	6(0)	88(0)	259(26)
Informal	8(5)	43(30)	10(3)	30(7)	11(6)	25(12)	-	22(4)	149(67)
Semi-formal	4(3)	52(37)	11(3)	28(13)	40(28)	41(16)	-	18(1)	194(101)
Formal	1(1)	19(15)	4(2)	47(2)	3(3)	43(8)	-	11(1)	128(32)
Total	42(12)	132(87)	65(13)	147(28)	65(40)	134(40)	6(0)	139(6)	730(226)

(Figures in brackets are for books alone)

TABLE 2.16

EFFECT OF FORM OF ORIGINAL ON
STRUCTURE OF SEA ABSTRACTS

Structure of abstract	Readings	Conf. papers	Ref. books	Off. reports	Text books	Total
Non-formal	1(1)	6(5)	-	1(0)	3(2)	11(8)
Informal	11(9)	7(6)	1(1)	3(3)	9(8)	31(27)
Semi-formal	10(9)	6(5)	-	10(10)	20(20)	46(44)
Formal	15(13)	3(2)	-	-	-	18(15)
Total	37(32)	22(18)	1(1)	14(13)	32(30)	106(94)

Structure of abstract	Pract. guides	Gen. background	Reviews of the lit.	Bibliogs.	Total
Non-formal	2(1)	7(2)	8(1)	1(1)	18(5)
Informal	6(6)	3(2)	9(3)	2(1)	20(12)
Semi-formal	4(4)	5(3)	7(4)	-	16(11)
Formal	1(1)	2(2)	2(2)	2(1)	7(6)
Total	13(12)	17(9)	26(10)	5(3)	61(34)

Structure of abstract	Schol. monographs.	Trend reports	Critiques	Proposals	Total
Non-formal	159(8)	51(4)	13(2)	5(1)	228(15)
Informal	74(19)	20(6)	2(0)	1(1)	97(26)
Semi-formal	101(43)	32(15)	1(0)	-	134(58)
Formal	101(10)	2(2)	-	-	103(12)
Total	435(80)	105(27)	16(2)	6(2)	562(111)

(Figures in brackets are for books alone)

Special characteristics of SEA abstracts

The patterns which emerge from the general analysis described in the previous pages are not by any means clear cut. Even in the way we handle reports of empirical research, where authors tend to follow a standard pattern of presentation, SEA's practice does not appear to be consistent. Either we are not in fact consistent or there are subsidiary patterns to be

identified. In the latter case, those patterns might be associated with combinations of characteristics rather than individual characteristics of the documents and might become obvious with further three- and four-way analyses. Alternatively they may reflect evaluations of the material which were too subjective to form part of the general analysis.

The object in describing our present practice is to help us to systematise our future practice. There is a point at which the identification of distinct types of abstract becomes an academic exercise and no more. Even if we had complete knowledge and were to embody it in any guide for abstractors this guide would either be too complex to be usable, or the attempt to apply it would lead to more inconsistency rather than less. It did however seem likely to be helpful to examine any further characteristic types of abstract which become evident in use[1] in order to indicate the kinds of circumstances in which they may be appropriate, even if no 'rules' can be formulated.

The general features studied have become known to us as: 'topping', 'tailing', 'circumdescription'. These are all concerned with the relationship between the content of the document and the content of the abstract. In addition, some miscellaneous characteristics of style and presentation may be mentioned at this point.

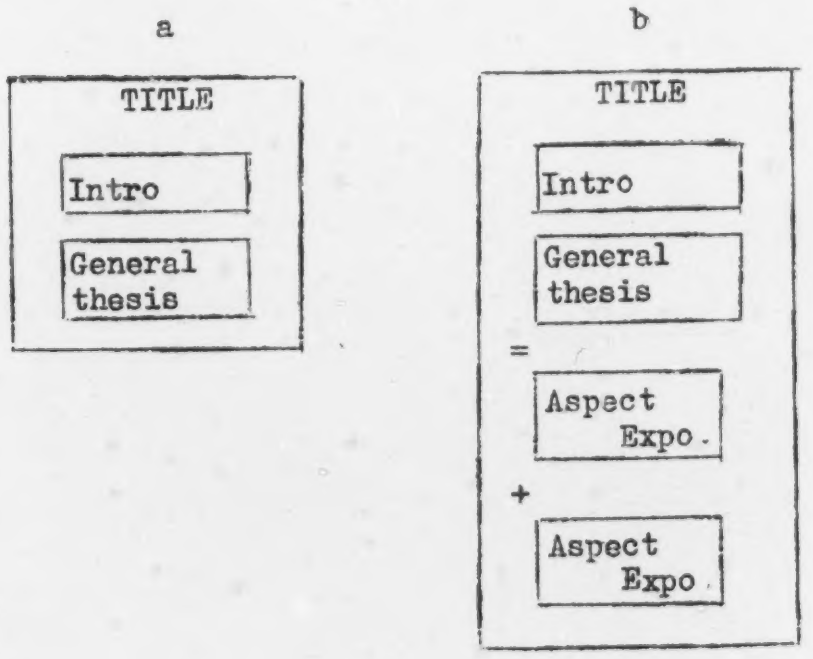
---

1. Our own 'use' of the service both in making the general analysis, for searching purposes in the course of running the bibliographical enquiry service, and in indexing experiments have brought these practices to light.

Features of content

It may be helpful first to describe the basic types of relationship which may be derived from our conception of the abstract consisting of either 'topic', 'exposition', or both topic and exposition.

A document deals with a given topic which is often identified in the title; this may be amplified (e.g. how treated) in an introductory section or chapter. The entire document may consist of discussion of the topic at a general level, or it may be treated aspect by aspect. If treated at the most general level the discussion is a simple exposition of a thesis. If treated in more detail the individual aspects considered each receive a separate exposition, though these will tend to advance a main thesis. (Some works are of course more complex, dealing with several topics simultaneously, but this does not invalidate the nature of the underlying pattern)



An abstract for document type (a) may take the forms

a(i)

TITLE
+
Topic

a(ii)

TITLE
+
General Thesis

a(iii)

TITLE
+
Topic
+
General Thesis

An abstract for document type (b):

b(i)

TITLE
Topic
+
Aspect
+
Aspect

b(ii)

TITLE
General thesis
=
Exposition
+
Exposition

b(iii)

TITLE
Topic +
General thesis
+
Aspect Exposition
+
Aspect Exposition

(Type (b) documents may also of course be accorded type (a) abstracts.)

The further possible permutations may be worked out. Let topic = TO, thesis = TH, aspects of topic = A, exposition of aspects of topics = E (the order may vary in the actual abstract):

TO + E

TO + A + E

TO + TH + E

TH + A

TH + E

TH + A + E

*A

*E

*A + E

A start was made upon classifying abstracts into these categories but it became evident that the assumption, implicit in the construction of these categories - that abstractors would for the most part treat all parts of a document similarly - was not valid. Abstracts of type (b) were then classified simply into 'regular' and 'irregular' and the latter were found greatly to outnumber the former. 'Irregular' abstracts could be described by a form of 'algebra' (e.g. TO + A + A + AE + E) and thus divided further into sets but this did not seem likely to be of practical value unless documents also could be analysed part by part. Additionally there was a considerable number of sets of one. This line of enquiry was not further pursued.

It was in the course of this work that the practices now

---

* These are not in practice, though logically possible, likely to occur.

to be described were first noted. (In other activities connected with the investigation their effect on use of the abstracts (helpful or otherwise) became evident; see footnote p.2.30.)

Topping and tailing

These are situations in which documents are treated in type (b) way (part by part rather than in summary fashion) but parts are not all treated in the same way. Sections of especial interest may be given an exposition, others of less interest (or for other reasons e.g. complexity) may merely be mentioned in terms of the aspect of the topic which is discussed[1]. The variations are numerous.

Two forms were found to recur quite frequently:

1. 'Exposition' is used throughout but the abstract suffers a 'change of gear' at the end and the latter part of a work is represented merely as e.g. 'further topics discussed are ... ', 'the implications are discussed' etc. This for convenience may be called 'tailing' or 'telescoping'.
2. The preliminary part of a work is summarily dealt with; exposition is accorded only to findings or conclusions arrived at by experiment or argument which is not outlined in the abstract. In this case the document may be said to have suffered 'topping'.

---

1 e.g. in books of readings.

TABLE 2.17

FREQUENCY OF TOPPING AND TAILING

SEA Vol. 4 Issues	Tailing	Topping	Total no. abstracts
1	16	15	187
2	10	9	193
3	10	5	187
4	10	4	170

Examples are:

Tailing

Cecetka, Juraj 'The question of the group variant of the sociometrical test and its statistical appraisal' Pedagogika, 1967, 5, 569-682.
The author believes that the classical form of Moreno's sociometry is not sufficient to reliably ascertain the real group relations of individuals and the actual group structure of the population that is the subject of the research. To supplement sociometric research he proposes a group variant of the sociometric test whose substance and specific feature is the fact that the person examined is called upon explicitly to make up a group of people, to choose individuals with whom he or she would like to undertake a certain group action and the like. The author explains his procedure and shows how, on the basis of tables and sociograms and also by means of set percentile curves, "group attractiveness" of individuals in a given population and their "group orientation" may be ascertained.

Jonassen, Christen T. Community conflict in school district reorganization . Oslo, Universitetsforlaget, 1968. 132pp. Paper Nkr 19.50 (approx 23/-).
PROBLEM: A study of community conflict in a specific instance where urbanization, modernization and centralization impinge

upon traditional community patterns and local loyalties, namely, in the issue of closing a two-room village school in a rural area of Norway and transporting the children to the local township for their education.
METHOD: "Event analysis" The application of survey technique using a schedule, three specially constructed scales - a ruralism scale, a school localism scale and an alienation scale - and probability statistics within the holistic approach of the community study method.
DISCUSSION: Covers cultural and psychological factors including local rivalries, rivalry between town and country and idealogical oppositions reflected in the results of various interest groups on the scales; and social structure factors including groupings, statuses and roles. Theoretical implications are pointed.

Topping

Dale, R. R. 'Premature retirement of women teachers from girls' and mixed secondary schools' British Journal of Educational Psychology, 1967, 37(3), 329-338.
This article is one of a series of attempts by the investigator to introduce more objective criteria into the study of the comparative effects of coeducational and single-sex schooling. There was no significant difference between breakdown rates in mixed and single-sex schools. The writer suggests that the predominantly urban siting of the single-sex schools probably places them at a disadvantage and may account for the slight tendency for mixed schools to have a better health record among staffs as judged by the breakdown criterion. It was noted that the rates of breakdown were some 40% higher in grammar schools than in secondary modern schools.

Fasick, Frank, A. 'Educational retardation among children of migratory agricultural workers.' Rural Sociology, 1967, 32(4), 399-413.
A study of families with children attending special summer schools for agricultural migrants during 1962 and 1963, as

well as previously published data, show that families enter migratory form labour to improve the family income through employment of the children. The parents' low evaluation of formal education contributes to their willingness to engage in this work. The consequence for the children is severe educational retardation, which is supported indirectly by farmers who have integrated migratory families into their operations and by laws dealing with farm labour. The factors leading to youth employment in agriculture are similar to those that led to youth employment in industry at an earlier period. The short-run educational outlook for migratory children is bleak, but long-run prospects are more hopeful.

It is planned to study such abstracts in relation to the documents they represent. It is believed that this may throw some light on the art of abstracting as distinct from the 'scientific' method. SEA's approach has its dangers but, given safeguards against distortion, is also a considerable strength.

'Circumdescription'

This was a feature of our abstracts noted in analysis when recording the statement of topic, prior to studying 'part by part' treatment of a document. It was found that about 20% of the abstracts of type (b) devoted more than 50% to a statement of topic.[1] In these cases only rarely did the statement of topic incorporate details of the aspects of the topic treated. The amount of space devoted to 'topic' in these cases was accounted for by something more even than the statement of 'treatment' we included under the heading 'topic'. It is perhaps best described as 'context' (i.e. its function is

---

1. It is not impossible for an abstract to be devoted entirely to what an author aimed to do and never actually to describe what he did do.

to aid the user to understand what the topic is, thus being additional to information as to what is said about the topic, how it is treated etc.). 'Context' was found to occur commonly in the early part of an abstract, but could also be found in the middle or at the end. It is normally derived from the introduction or a first introductory chapter in the original.

Examples are:

Clark, S. D. 'Higher education and the new men of power in society.' The Journal of Educational Thought, 1967, 1(2), 77-87.
What are the consequences for society when a large proportion of young people do not have the benefit of a higher education at a time when higher education has increasing importance? The spread of higher education in North American society is directly related to an increased standard of living and the removal of barriers to upward mobility. However, increased dependence on the man of specialised knowledge is creating new social divisions and new power structures which underlie revolt against middle-class social values and the rise of anti-intellectual movements. A comparison is made of the rise of the conspicuously deprived young people in United States, English- and French-speaking Canada, with special attention focused on the rural immigrant to cities. There is a need to develop other types of educational institutions than universities to bridge the gulf being created between the educated or not educated.

Lynch, James. 'A problem of status: teacher training in West Germany.' Comparative Education, 1967, 3(3), 219-224.
Discussion of efforts made this century by German elementary school teachers to improve their status. Their demand has been for equal status with secondary school teachers by virtue of training at university. This has never been achieved despite several 'near-misses'. Genuine doubt about the advisability of the university becoming the overseer of a

training so closely geared to practical work has usually been the difficulty. The alternative solution, to make elementary teacher training colleges autonomous but of university status, has met with no further success. (Though latterly a grouping of such colleges into university-equivalent institutions has been announced in Westphalia.) The article traces the important stages of the battle (sic), including references to schemes by British and American occupation in 1945, and various moves, in advance of elsewhere, in Bavaria.

Features of style and presentation

SEA has always taken the view that individuality of style enhances rather than detracts from readability and usability of its abstracts. The only stipulation is that communication should not be impaired e.g. successive points may be tabulated but 'telegraphese' is not acceptable since it requires interpretation. Without ready access to the originals it is difficult, in the office, to do much editing for clarity, and there has been inadequate time on the editorial side to correspond with abstractors on such points.

A number of instances of unconventional spelling, grammar and punctuation were noted;[1] these disturb the reader but do not on the whole lead to information loss. More serious are instances of ambiguity. These may result either from statements which are open to more than one interpretation, or from the omission of essential information. The effects of this situation are obvious. It has become evident that it is far from uncommon, though not always

---

1. Ranging from one instance per 9 pages to one instance per 2 pages. Investigation shows that these are often not amended before copy goes to the printer, although printer's errors add to this and are not detected in proof reading.

apparent until an attempt is made, from an abstract, to describe in detail the expected contents of a document.

Denseness of print and absence of paragraphs are, in longer abstracts at least, likely to detract from usability, but economic factors are overriding on these points.

The concept of the 'completeness' of an SEA abstract is rather difficult to define, and is entangled with notions of, and aspirations to, objectivity. SEA has always set its face against critical evaluation, although minor examples may be found. At the same time sufficient information should be available for the user to evaluate, and to evaluate not merely for relevance to a given problem or topic but to select the most worthwhile amongst documents on his problem or topic. Therefore in some pieces of research it may not be necessary to go into detail about for instance the sample; in other cases it could be misleading not to do so.

The process becomes more subjective in case of 'ideas' writing. There are instances where the presentation is such that one cannot tell from the abstract whether a rigorous experimental study or a general airing of ideas may be expected from the study. Material of indirect relevance also may be misjudged if the specific reason for its inclusion is not clear.

It should be stressed that such cases are isolated. Nevertheless the fact that they may occur represents a trap for the unwary and particularly those with less sociological background and thus less ability to 'read between the lines'. It tends to lower the reliance that may be placed in SEA for purposes of detailed study.

Validity of SEA abstracts: journal abstracts

The detailed study carried out with the help of selected abstractors (see also p. 3.) is extremely helpful in throwing some light on the reasons for which aspects of originals influence abstracts in some particular way. This study related to journal material[1] only. Abstractors were asked to indicate the length of abstract appropriate to each item selected for inclusion. This seemed to vary with perception of immediacy of interest of the material; the two abstractors who were more highly selective in what they would include tended to have a larger proportion of longer abstracts. Those who were more liberal or inclusive tended to use shorter abstracts. Since abstractors sometimes viewed immediacy of interest differently there were occasional wide differences in the amount of space deemed appropriate to some items.

Some abstractors wished sometimes to be selective amongst the contents of individual items. Some items were seen to be very concise or closely argued, thus requiring a longer abstract. There was consciousness of pressure on space in

---

1. Journals used were:

American Sociological Review

Comparative Education Review

Journal of Educational Research

Journal of Social Psychology

New Society

Record

Sociological Review

Unesco Chronicle

SEA and length was clearly associated with the amount of space a given item was 'worth' in SEA. Material of a very general nature was not considered worth extensive treatment.

Panelists were also asked a) whether they would tend to treat any item formally section by section or whether they would treat it in a looser, more 'thematic' way; and in either case b) whether they would consider it most appropriate to treat all points of the original uniformly or would wish to 'highlight' or 'telescope' certain parts relative to the rest. One abstractor only favoured 'loose' abstracts and then only slightly. Others thought that in about $\frac{1}{3}$ of cases the 'looser' abstract would be more appropriate.

However, there was 50% disagreement as to which items required which type of treatment. This was spread over all journals with the exception of the Record, an educational 'ideas type' journal unanimously considered not to need formal abstracts.

On the point of uniformity of reduction there was a strong tendency towards uniformity but, in a proportion of cases ranging from 1/7 to $\frac{1}{3}$, panellists felt that special or selective treatment was desirable. These particular items will be studied in detail.

Panellists were then asked to indicate the appropriate level of abstraction (see p.2.12) using the code previously described. For material in, or directly bearing on, the sociology of education, 50% of the items were deemed to warrant statements of both topic and exposition, and the rest in almost equal parts topic or exposition only. 60% of material of more general interest was accorded topic only, and a quarter both

topic and exposition. Since the degree of relevance could not be agreed upon there was similar disagreement here as to type of treatment although individual abstractors tended to have their own stereotyped patterns of treatment.

No mention was made of the specific purposes the abstracts might be considered to serve, but the guidelines were worded so that this could emerge unprompted from the column for 'grounds for decision as to form of abstract' which panellists were asked to complete. It would seem that the service is viewed largely as a bibliographical record of work in the field and relevant to it, the primary function of which is to identify relevant material, secondarily to set down the substantive contents of the material so as to draw attention to it. Comments were made as to 'political' reasons for representing certain work and encouraging interest in certain areas, also on the adequacy in some cases of advertising the existence of a piece of work rather than giving details.

Particular groups of users were not mentioned; comments on selection were based on an appreciation of the document vis-à-vis the field as a whole rather than individual groups of people in the field. It is perhaps that SEA is seen at present as a shop window, where the onus is on the customers, a diverse body, to search out and examine further anything that appeals to them. One abstractor clearly took the view that brief abstracts were advertisement for the user who is interested and will obtain the original. It was not clear whether it is felt that if substantive findings are extracted, an abstract might serve as a substitute for the original.

Reliability of SEA abstracts: journal abstracts

In cases of abstractors dealing in the study with the journals they regularly abstract for SEA, it is possible to compare their actual decisions with these later recommendations. This analysis is now in hand.

General aspects of book abstracting

Reluctance to impose further upon any of our abstractors at this time deterred us from making a detailed study of validity and reliability of SEA book abstracts. It seems a reasonable assumption that neither validity nor reliability is higher and both are probably rather lower than is the case with journal abstracts, despite the fact that a substantial proportion (25%) of book abstracts are prepared in-house from locally available material. Some 'case studies' illustrate the problems of book abstracting.

There are some major problems which books seem to present in addition to those they share with journal material:

1. There is more material to reduce into a limited space.
2. The structure is more complex.
3. A book is likely to have contents of a more diverse nature than a journal article (a book of readings is an extreme case).
4. Material of a higher degree of marginality or indirectness of relevance than in our journal material may, because of its authoritative nature, be selected for SEA. It may also be only partially relevant.
5. Pressures from publishers.

Where length, complexity or diversity is the main problem, separate chapter abstracts may be provided, if space permits-

a practice sometimes, but not invariably, adopted by SEA and only in the case of multi-authored works such as symposia. At the other extreme is a simple contents list, either more or less as in the book itself or in a more summary and possibly narrative form.

Let us suppose however that a form of treatment intermediate to these alternatives (i.e. to separate chapter abstracts or summary treatment of some kind) is considered essential for work, either experimental or theoretical, felt to represent a significant contribution to the literature.

Two possibilities are illustrated in the following abstracts, appearing in different services, both relating to the same work.[1]

(1) (SEA 4(4) 600) A contribution to theoretical sociology as well as to academic criminology. The author proceeds from the base that analysis of decision-making requires an understanding of the 'invariant properties making up the background expectancies' of people involved in the process. Like all people, they operate with expectations and norms and a 'sense of social structure' which enables them to make sense of what they do. Conventional sociologists and criminologists are criticised for usually failing to appreciate this fact and for accepting as obvious community and law-enforcement definitions of deviance and so-called social problems. Thus the common complaint made about 'bad' crime statistics should lead social scientists to study the procedures which produce the warped statistics as well as to try to correct the figures themselves. The basic assumption of conventional research on crime and

---

1. Cicourel, Aaron V. The social organisation of juvenile justice. London and New York, John Wiley, 1968. 345pp. 84/-.
SEA, 4(4), 600;
Sociological Abstracts, 16(4), D1904.

delinquency misguidedly views compliance and deviance as having their own ontological significance but progress requires recognising that how members of groups come to be labelled 'deviant' is much more essential for a truly sociological understanding. Thus the view that delinquents are 'natural' social types produced by various internal and external pressures is criticised and an alternative view is offered that law enforcing organisations themselves produce and decide what is deviant and delinquent in their own communities. The delinquent is seen as 'an emergent product, transformed over time according to a sequence of encounters, oral and written reports, prospective readings, retrospective readings of "what happened", and the practical circumstances of 'settling' matters in everyday agency business. This is termed by the author 'the creation of history' and the thesis is demonstrated and illuminated by a description of the organisational workings of police and probation departments in this regard. A number of case studies of actual children are also analysed in support of the main thesis and reveal the problematic nature of social control and juridical procedures generally.

(2) (SA, 16(4), D1904) An examination of the everyday practices of the police, probation officials, and the courts, which views these agencies as actually generating DEL'cy by their routine encounters with juvenile, in 8 Chpt's, preceded by an Author's Preface. (1) Preliminary Issues of Theory and Method - emphasizes the empiricism, objectification and verification of the data, on which the conclusions of this book are based, and reviews some published literature on objectivity and verification in sociol'al res. (2) Theories of Delinquency and the Rule of Law - states that JD'cy theory rarely sees JD'cy as a product of the agencies of soc. control. Some of these theories are examined. (3) Delinquency Rates and Organizational Settings - analyzes material on DEL'cy and DEL's taken from police and probation files to show how official statistics are assembled. It is observed that conventional sociol'al explanations often rely upon unexamined, unverified tacit assumptions re the workings of gov and law-enforcement agencies, and that they often do not take sufficient account of

the encoding operations employed by those who assemble official statistics, and by the res'er. (4) Conversational Depictions of Social Organization - deals with the JD'cy situation as a soc scene, in which particular language, gestures, facial expressions, etc, are employed. The system of coding juvenile offenses is discussed, and some dialogue is quoted verbatim. (5) Routine Practices of Law-Enforcement Agencies - presents findings on the procedures and techniques followed toward JD's. Several case histories are presented. (6) Law-Enforcement Practices and Middle-Income Families - describes how Mc parents often challenge law-enforcement agencies when their children are charged with JD'cy, and how this makes it difficult to make a case for criminality in direct confrontation with fam resources. Here imputations of illness replace those of criminality. Again, case histories are given and some suggestions are offered. (7) Court Hearings: The Negotiation of Dispositions - describes court hearings in one city in Calif, with excerpts of records quoted for a number of JD's. Special attention is paid to the manner of verbalization in the reports of experts and officials and in questioning the offender. (8) Concluding Remarks - points out that the special skills, which the police acquire to enable them to decide "normal" and "unusual" circumstances, become crucial elements of their sense of soc structure. General policies and rules are implemented within a context of unfolding contingencies attached to actual soc scenes. The verbal interpretation given by police and official agencies to situations "makes" a DEL, who engaged in activities labeled "DEL", who is described as "defiant", or as having "a bad att" etc. The study challenges the view which assumes "DEL's" are "natural" soc types distributed in some ordered fashion and produced by a set of abstract "pressures" from the "soc structures". 41 Tables and separate name and subject Indices.

In the first instance the abstract consists of major points in the argument of the monograph set down in sequence to form an extended statement of the author's thesis as summarised by the abstractor (our form $E + E + E^n$). The second abstract offers

a chapter by chapter treatment in which the thesis is similarly developed, but in its context, and in a little more detail. We have yet to have such contrasting abstracts (the essence v. the 'faithful record') evaluated by users but on the face of it abstract no.2 appears to have a number of advantages:

1. The general statement of thesis which prefaces the abstract is conveniently placed for those scanning through the abstracts to decide whether to delay or return to read the entire (quite lengthy) abstract. It is not until over half way through abstract no.1 that one encounters such a statement.

2. Subdivision by chapter is helpful in enabling the user to take a swift overview of contents.

3. The chapter by chapter treatment of thesis is likely to ensure that important statements are not omitted e.g. the fact that this work is based on an empirical study and is not merely a personal expression of ideas. (The author's standing may be sufficient to indicate that this would be the case but this may not be known to those without an extensive sociological background.)

4. It avoids the ambiguities which may occur in a more compressed abstract as in the sentence (third from the end) in abstract no.1 reading 'The delinquent is seen as "an emergent product ..." '. Cf. also the conclusions of the two abstracts - the telescoping in (1) ('the problematic nature of social control and juridical procedures generally') and the detail in (2).

5. Some of the additional information e.g. on 'Conversational Depictions of Social Organisation' might be regarded as being of lesser interest but this is a dangerous kind of assumption.

Even if, as in abstract no.2, such information is cited only as an 'aspect discussed', without actual exposition', this seems preferable to omission of this detail.

Abstracts of type (2) do occur in SEA and it is possible that for 'significant' works they should be encouraged, where separate chapter abstracts are inappropriate or not feasible, and the 'contents list' is felt to be inadequate. For works of a more popular nature, where treatment of subject is not closely argued or unusual, a simple statement of general thesis alone is probably adequate.

The general inadequacy of the contents list type of abstract will be evident from a comparison of the following two abstracts:[1]

(1) (SEA 4(2) 197) Intended for undergraduate students of education in the USA and derived from a wide background of mostly secondary sources in English, referred to in a long appendix, this introduction surveys generally the social background of schooling - the family, myths about Negroes, teacher supply, teacher education, curriculum, education costs, administration, grants and loans, adult education, leisure and "educare". This last is defined as the education of urban minorities.

---

1. Bernstein, Abraham. The education of urban population. New York, Random House, 1967. 398pp. Paper $3.95.
SEA 4(2) 197; Sociological Abstracts 16(4), D1847.

(2) (SA D1847 Jul 68) An introductory educ text aimed at a new kind of teacher-candidate and intended for new circumstances in educ, in II Parts and 17 Chpt's, preceded by an Author's Preface. I - THE PROBLEM - includes: (1) Urban Education and Rural Reclamation - which discusses the following types of educ: Dixie, Italian style; English style; French style; US style in terms of flow and stasis of people, capital, and ideas; and suburb and "super-burb" educ. (2) Family Structure and Education - examines Negro and Latin fam styles and Ur brotherhood in US cities. (3) Stupidity and Ignorance - is concerned with educating the stupid vs educating the intelligent. (4) Militancy and Intelligance - discusses the aggressiveness of minority groups. (5) The Teacher - deals with evaluating the teacher and problems of teacher training vs Ur educ. (6) The Curriculum - considers the merchandising of educ'al materials and techniques, aspects of team learning, and the dichotomy of content vs concept in curriculum. (7) The Bureaucracies in Urban Education - provides a brief history of Western European educ'al bur'cy and discusses the bur'cies of esthetics and deprivation. II - THE SOLUTION - contains: (8) The Budget and the Program - which is concerned with educ'al funds. (9) Educational Extenders, Fore and Aft - examines after-Sch, weekend, and Sun programs of Sch's. (10) Money Incentives for the Learner - presents the possibility of paying the pupil to learn. (11) Curricular Psychology - considers separately the various subjects taught in US Sch's: reading, English, mathematics, soc studies, etc. (12) The Training of Teachers - examines the improvement of in-service training and the teaching candidate's pre-service training in relationship to the needs of the nearby Sch system. (13) The In-Service Course - An Example - suggests in detail a 30-session course on educ in deprived communities, while the candidate is undergoing in-service training. (14) The Pre-Service Course - Two Examples - proposes 2 courses: (a) educ'al philosophy and history; (b) human development and educ'al psychol for the pre-service teaching candidate. (15) The Administration of the Urban School-deals with the relations between the Sch admin and the staff and the parents, as well as the role of the admin'or in educ'al innovation. III - PROSPECTS - includes: (16) Adult

Education, Automation, and Leisure - which offers general observations on programs of adult educ, on modern developments of automation, the sudden abundance of funds available for educ, the educ of the gifted and the problem of educating everyone in terms of his abilities. (17) Toward Educare - Total Education for Urban Minorities - urges a heterogeneous approach for educating US minorities, the training of teachers who are as much at home in the community as they are in the Sch and who do not allow community leaders to browbeat them. Educ should become more diversified as guided by empirical res data on a variety of communities. The teacher must no longer be an outsider; he must bring with him the values of the exp'al as against the traditional. An Appendix, a Bibliog, and a joint name and subject Index.

The advantage of the latter over the former is quite simply that there is (and was at the time the abstracts were published) a wealth of material on urban education. The topics covered in a work of some 400 pages could probably be predicted with some accuracy from the title; the potential value of an abstract is rather to indicate the particular standpoint on each topic of this author. Knowledge of the author cannot be assumed. Presumably since the work is said to derive largely from secondary sources the summary of contents is felt to be adequate but, since the nature of these sources is not indicated, the user can make no deductions about the nature of the material under each heading. Unless urban education is being explored exhaustively, additional detail would be crucial in deciding whether to follow up the reference. The book might well have to be obtained solely on the basis of the information in the abstract, on inter-library loan or on approval from the publishers, unless a review happened to have been traced. Even a complete contents list rather than a summary of topics would

be less than helpful.

It is difficult to conceive of a situation in which a simple contents list alone can be adequately helpful except in the case of books of readings. Part, section or chapter headings only tend to have the same disadvantages as titles (see p.2.55). Such an analysis of a book of readings, however, is quite appropriate since the information sought is bibliographical rather than subject information. This does not, of course, apply to symposia containing original work, where one cannot expect prior knowledge of the work.

When factors of marginal, indirect or partial relevance further complicate the issue, some modification of technique may be required.

It may be argued that some of the works included are marginal in that they are of an order of generality such that a brief abstract is all the work is 'worth'. Were there a general education abstracts service such books would probably not be included. As things are they tend to be included but treated very cursorily. Some would contend that such works should be 'announced' and that those interested should refer to the actual work. On the other hand it is equally valid to suggest that since they are so general this would not be the best use of the user's time and a full abstract would be an adequate substitute for the original. Again if they are so general should they be included at all? Or at any rate would it not be more helpful to exclude them from the abstracts but to append details in an 'also of possible interest' section? (The Editor is considering this suggestion.)

The same arguments may be applied to material of marginal

subject interest; the problem here is that such material may nevertheless be of central interest to marginal users. It would seem to be a safer principle that such material, if worth inclusion, should be accorded similar treatment to that given to material of more central interest.

Books of indirect relevance are a difficult category. There are at least two major types of indirect relevance (see p.1.): theoretical and factual 'backing', and items unrelated to education per se but relevant as models. The former type may have as much immediacy of interest as material in, or closely relevant to, the sociology of education and would seem to merit the same type of treatment. In the case of the latter it would seem more appropriate to sketch the content of the work as background to the special features which make the work of interest to the sociologist of education. In either case the particular relevance needs to be spelt out since it may not be obvious, e.g.:

(SEA, 4(4), 723).
Although speaking primarily to managers of business concerns, the author discusses formal organisations in terms which can be used also for the analysis of service (including educational) organisations. He begins by using a discussion of single and multiple causation to lead to a discussion of the idea of "system", emphasising especially equilibrium and feedback. Systems analysis is seen as an analysis of functions. Formal organisations as systems are viewed as involving four types of variables: human, technological, organisational and social-structural/normative. Each of these is considered in turn. The final chapter, "Analysis and Action", is concerned with the relationship between systems analysis and subsequent action, and with the ways in which the analytic categories formulated in the earlier part of the book can be used. A number of case studies, designed for practice in analysis, are included.

For material of partial relevance a similar treatment to that for items such as the former seems to be required, unless the relevant portion forms a separate physical unit in the book and can receive an individual abstract. If not, it is highly desirable to indicate the total scope and coverage of the book, lest a distorted impression of the portion highlighted is conveyed, e.g.:

(SEA, 4(3), 385).

Designed as an introduction to the foundation disciplines of education, the volume is intended "to provide some preliminary perspectives on the various ways of investigating educational problems and concepts..." and to introduce the student "to sociological, historical, philosophical and comparative information significant to educators, and to important ideas that have contributed to the development of our educational system". The first section, Sociological perspectives on education by D. F. Swift (pp. 11-24) outlines the sociological approach to problems, the role of education for the sociologist, the institution of education, the function of the educational system, the culture of man, the school as a social group, education and social class, and education and social change. Further sections are concerned with the history, and philosophy, of education, and with comparative education.

With regard to pressure from publishers, there are two problems. Either publishers are loath to provide books for abstracting, lest this diminish sales, or, having provided a 'review copy', they are concerned that their book should figure prominently in terms of space. In either case library copies may be used for abstracting - that the wishes of publishers should continue to influence either presence or length of abstract and disrupt prospective measures of quality control

is to be deplored.[1]

Two alternatives to abstracts

Titles as predictors of content of documents

There have been studies in some scientific fields (e.g. biology[2]) into the value of titles as predictors of contexts. Many are sceptical of their value in the social science context, but there are nevertheless 'Current Contents' services in both education and other fields[3]. It was felt that this question should be clarified before going too deeply into the problems of abstracting.

Such services might be of value at two levels:

a) to eliminate non-relevant material from consideration,

b) to identify, and indicate priorities amongst, possibly relevant material.

From SEA's point of view there is no interest in titles alone; in our context we would expect to supply at least full bibliographical information. It is possible that a great deal of what the user needs to know in assessing for relevance may be derived from information about the author, his affiliation,

---

1. The Editor comments: 'Neither reason is a justification for varying any future policy of quality control'.

2. Bernard, J. and Shilling, C.E. Accuracy of titles in describing content of biological sciences articles. (Biological Sciences Communication Project Communique) American Institute of Biological Sciences, 1963.

3. e.g. Current Contents, Behavioural, Social and Management Sciences, Philadelphia, Pennsylvania Institute for Scientific Information, 1969 -, 1 (1) - (Wheatley).

publisher, date and length of work, together with its title.

With this information at his disposal, in particular if he has prior knowledge of the author and his general approach, the specialist may well be able to make a fairly accurate prediction, although an abstract may confirm his prediction and provide additional detail. It was felt that the more important question in considering the effectiveness of bibliographical references as predictors, as distinct from questions of convenience, was their value to users with only a minimum sociological background.

A small study was conducted with about 20 members of an advanced course in the sociology of education at the Oxford Department of Educational Studies. About forty items which were abstracted in a recent issue of SEA (5(4)) were selected. These items represented certain types of books and journal articles, and included both scholarly work and material more popular in approach with 'catchier' titles, although no titles wholly lacking in information content were included (it is obvious that such titles would need to be extended in any purely bibliographical service). Both empirical and 'ideas' documents were represented as well as some non-sociological work.

Bibliographical details of these items were duplicated on a pro forma together with SEA references, and members of the group were provided with copies of the appropriate issue of SEA. Each panellist was asked to note against each item whether he had previous knowledge of it, and on the basis of such knowledge as he had already, or had been given, to write brief notes on expected scope and contents. Then he was

asked to work through the list again comparing notes with abstracts and to assess the accuracy of this prediction.

Students had just completed a diagnostic test in introductory sociology so this made it possible to group them according to their knowledge of sociology and relate this to their responses, as well as to compare accuracy in relation to different types of material.

Returns are not yet complete. Results will be reported in due course.

'Contents lists' versus abstracts

It has been seen that many of SEA's book abstracts take the form of 'contents lists' rather than, strictly speaking, abstracts of the author's views, statements, findings etc. on the subject he is treating. It is clearly a simple matter to reproduce the list of contents from the front of the book, whilst an abstract takes rather longer to prepare. It is not known to what extent the extra labour (time and cost) involved in preparing an abstract is worthwhile in terms of enabling the user to make a more accurate assessment of the relevance of the book. (We make the assumption that an abstract can rarely serve as a substitute for the reading of a book (in the way that it perhaps sometimes can for a journal article) by providing adequate knowledge even for general interest purposes, of the contents of the book.)

A special study involving comparison of contents lists and abstracts was considered but it was abandoned on the grounds that evidence of the effectiveness of titles would probably apply equally to contents lists, which are essentially a series of title-like headings for individual sections

of a work.

Effectiveness of SEA abstracts

This question has necessarily been studied somewhat unscientifically up to the present stage. There are not even any crude but independent measures of use (such as citations, in the context of coverage) which could be utilised. Self recording and reporting were considered as a possible method but, since abstracts 'stand' for documents, any exercise studying the effectiveness of abstracts should include parallel use of the documents for purposes of comparison, with obvious problems.

It was decided therefore to approach this work from another angle and first to consider the requirements likely to be made of SEA abstracts in use, then to assess subjectively how far the abstracts do or do not meet these requirements. SEA's own experience of SEA (e.g. in running an experimental bibliographical enquiry service, see p.3.) provide the basis for such an assessment.

The main aspects of use considered are:

1. Scanning/reference (from index to individual abstracts), /reading.
2. High/low discrimination.

The following basic requirements were suggested:

1. A user may of course switch from one mode of use to another almost from one minute to the next - abstracts should be capable of use at different levels.
2. Users' needs are not homogenous even when their interests are congruent (i.e. a given task may validly be approached from several perspectives) - abstracts should thus allow of different approaches to use of the documents they represent.

3. Users will sometimes require to locate and peruse information about a previously identified item, sometimes will wish to identify their requirements by surveying the available items - abstracts should allow for different techniques of searching.

4. Users have limited time - all possible devices should be explored which may contribute to ease of assinilation of information.

The following were felt to be desirable features:

1. The abstract should contain a brief opening statement of a title-like kind indicating the nature, level, scope of the work and the subject or theme of the work, prior to the body of the abstract, which in fact users may not then need to study.

2. Where the subject matter is of indirect bearing on the sociology of education the reason for its inclusion should be stated unless self-evident.

3. If a selected part of a work only is reported, but this is not clear from the bibliographical citation, the relation of the part to the whole should be indicated. Even where the whole is abstracted the balance of the original should be indicated even if not maintained.

4. For the benefit of those selecting items identified via the index, the appropriate 'tags' should be distinctive and the lay-out helpful for this purpose.

5. Where an index entry refers to a part rather than the whole of a work, and thus of an abstract, paragraphs at least should indicate where new ideas are introduced, and preferably 'tags' would be helpful.

6. Those scanning all or a section of the abstracts were felt to be well served by an introductory statement of a general

nature. If however a number of abstracts are to be read in entirety, readability becomes important. It was felt that breaks and tags would not be unhelpful in this respect, but that complete sentences were preferable to telegraphese, and that a certain smoothness of expression or style was not incompatable with accurate representation of the author's text. Unduly long sentences however are undesirable.

7. In certain types of work visual presentation (e.g. table, diagram) may be a more effective means of conveying information.

8. With regard to nature and amount of detail it would have been impossible at this stage to state how much and what type of detail should be given. Instead this question has been approached from the angle of important questions which should be answered (i.e. to which the user would seek the answer had he the actual work in his hands). These are still under consideration.

These suggestions amongst others are to be circulated, with examples, to abstractors, and may be modified in the light of their comments (both on academic and practical points). Abstracts embodying these suggestions will also be subjected to test at the Easter seminar. In the meantime it was considered worthwhile to assess the sort of change this would involve in our present practice.

General introductory characterisation

It is not our invariable practice to preface an abstract in this way, This is sometimes perhaps because the title is held to convey this summary information so that for instance an abstract might merely deal with sample, instrument and results[1]

1. Results alone however would seem, on academic grounds, to be inadequate.

of a given piece of research. However, while a title may be informative, it may yet be ambiguous (see p.2.55) and thus hamper recognition of relevance. At the other extreme there are a number of abstracts, mostly books, where the major part of the abstract is devoted to such preliminaries, and the contents of the work are not specified in any detail. This, for works such as textbooks covering most aspects of a given topic, is perhaps acceptable, since the contents can readily be predicted, possibly also for works of marginal interest, but in most cases this would satisfy only the 'low discrimination' user.

Statement of nature of indirect relevance

SEA is now used by students and librarians as well as professional sociologists of education. For their benefit if for no other reason it would be helpful if the precise reason for the inclusion of material of indirect relevance could be given. This is often self evident in the case of 'backing' material (i.e. sociological or educational theory or data). But selected works are included in areas such as social stratification, and whilst their general relevance is obvious, the particular features of these works which justify their inclusion, where others in the same area are not included, are not always clear. This comment relates mainly to books and concerns largely work of an authoritative nature, likely to become a standard reference for those concerned with e.g. stratification, the family, but this may not be made clear to the user. A further range of material in related areas of study (e.g. management study) may require similar comment to show the work to be of special interest to a particular group, approach, type of problem, special area of study etc. within

the sociology of education. In this way SEA would rely less on the insight of the user and assume no highly specialised knowledge, though at risk of stating the obvious. There is clearly a limited amount of material only to which these comments apply.

Abstracts of works of partial relevance

SEA has two methods of treating works of partial relevance. Where highly germane sections (e.g. chapters) form distinct units of a work, and can be abstracted separately, this is done. Problems arise when some part(s) of the work are felt to be highly germane but either they do not form a physically distinct unit (e.g. recurrent references to an educational context in a work of sociological theory or method, but not focussed on education), or they do form separate units but the rest of the work is also of low but some relevance. The danger here if the work is abstracted as a whole is of a misleading abstract. In the first case a subsidiary theme may appear to have much more attention than is in fact the case, and the user may be disappointed if he refers to the original thinking that this is the case and wanting only compact accounts of his topic. In the latter case, if an abstract devotes half its space say to one tenth of a book or journal article without making this quite clear, the user may be misled into expecting a much more extended account of his topic than he will in fact find. It should be mentioned that this may also happen within an abstract devoted to a given section of a work.

Layout and tagging

Presentation of the abstract in relation to the following up of index entries has not greatly concerned SEA to date. In

general there are several points deserving mention. One is the bibliographical citation practice which is sometimes inconsistent, sometimes flouts convention. When the volume of material was not great this did not cause serious inconvenience (this is in any case not always a matter of concern to academics), but as SEA grows there is an increased risk of overlooking sought items. A further point is that the text, not physically split into paragraphs except in the case of items accorded the problem/method/findings treatment, appears dense. This would seem to assist no-one. There is of course saving on space. Once the contents of the abstract can be agreed, some small experiments with different layout, type etc. will be desirable.

Style

The dangers of 'telegraphese' need no illustration. A greater problem in the context of SEA occurs when the complexity of the ideas to be presented is considerable, e.g.:

"The data suggest that teaching is likely to be attractive to those who have low achievement needs and high deference needs, though the findings that satisfaction accompanies strong needs for affiliation and nurturance are difficult to reconcile with the view that teachers are discouraged from displaying warmth. That a low dominance need appears to accompany high job satisfaction might be taken as evidence that conformism rather than originality is encouraged in Australian teachers." (From SEA, 4(4), 61, Journal abstract.)

In such cases length and complexity of sentence structure could probably not be greatly reduced to minimise the amount of intellectual effort required of the users. But in other cases SEA could do more along these lines to aid easy assimilation of ideas. Consider the following:

"Whether it be a question of primary education, where as soon as it is possible to establish compulsory education, this largely solves the problem; or a question of secondary education,

which especially in the technical and professional domain, reflects more directly woman's role in society and its socio-economic revolution; or a question of higher education, a relatively new conquest for women, who, except in a few countries, still tend to pursue quite traditional study programmes - the proportion of women in education varies from a small percentage to half or more of the total numbers enrolled, always lesser in the rural areas and sometimes overwhelmingly large in teacher-training courses." (From SEA, 4(1), 59, Journal abstract.)

Such cases are probably the result of an effort to condense either complex or diffuse ideas into a small space. Short sentences and liberal punctuation may however be more effective.

Punctuation is a question which will be studied in more detail. The sociologist has some idiosyncracies in the use of language, e.g. the use of nouns as, effectively, qualifiers, e.g. achievement motivation, role conflict, teacher role. Some of these forms are 'occasional' whilst others, by usage, have become new and distinct concepts. These compounds may or may not be hyphenated. Such terms may be further compounded, e.g. teacher role conflict - a simple example. It is thought that a linguistic study of such practices might be helpful in throwing light on the development and elaboration of the concepts expressed by these terms.

Use of tables, diagrams etc.

This is not our present practice and questions of cost and effectiveness need considerable study. In principle the idea would seem to merit further exploration. Some users may find assimilation of details of variables and hypotheses in a research study easier by means of a path analysis type diagram than by 10 - 15 lines of print.

Nature and amount of detail

SEA's practice varies very considerably and the general effect is that it would be unwise to make any final relevance judgments without reference to originals. The major change required would therefore seem to be towards more attention to the needs of those, possibly without easy access to a good library, who wish to use the abstracts for 'high discrimination'. It is probably unrealistic to think that for most purposes reading of an abstract can be an adequate substitute for reference to the original. There will nevertheless always also be those who do use abstracts in this way and thus any help afforded to them will not be wasted.

Comparison with practice of other abstracting services

Coverage overlap between SEA and other services is not great (see p.). However the possibility of exchange of abstracts amongst services is an attractive idea, especially offering the possibility of filling in gaps in coverage. The question of feasibility and desirability of aiming at compatibility is being considered.

Simple exchange would not necessarily be appropriate. The users of one service have perhaps a marginal interest in material of central importance to users of another but appearing in a 'marginal' journal. An abstract prepared for marginal interest might not be suitable. Again an abstract prepared for teachers of a subject would probably not answer all the questions a researcher would have about a document; an abstract containing the necessary information might not appear to have immediacy for the teacher.

Clearly each service wishes to cater for the special

interests and approaches of its own clientele and a more appropriate arrangement would perhaps be for the service catering for the target population of a given document to prepare a full and balanced abstract which other services might reduce, simplify or slant as they saw fit. This target population would be determined by discipline orientation, except in the case of purely technical and pedagogical material which would be the central province of a general education or rather teaching abstracts service. Specialist services such as SEA and hopefully soon psychology of education etc. services would ensure that specialist material was presented appropriately. Such services might exchange abstracts, and a general education abstracts service, and related services in areas such as higher education, would draw upon the specialist services for material of more general interest.[1] Were the general service to provide the pool upon which specialist services should draw it is probable that a number of abstracts would not be fully appropriate to the needs of the specialist and the originals would have to be sought and reabstracted.

There are no generally recognised standards for abstracting (those of the International Organisation for Standardization deals only with the most general principles). It is suggested that, whilst standards for the complete balanced abstract may be helpful, supplementary standards for different disciplines may additionally be essential, in which general principles may be

---

1. Abstracts might be prepared in a modular way (general description followed by a more detailed account, as suggested for SEA)

CHAPTER 3

USERS AND USER NEEDS

Part of the brief for the first stage of the project was to provide answers to the following questions:

(1) Who uses SEA at present?

(2) How is it used?

(3) For what kinds of use ultimately should SEA attempt to cater?

Planning of user studies

It was decided, at this stage at any rate, to restrict our enquiries to British specialists. It was considered undesirable to conduct a comprehensive and detailed survey amongst British sociologists of education for several reasons. First, the Infross survey had already included members of our population in such a survey. The other major reason is that we wanted not merely to collect basic data from sociologists of education but also to ask them to help us evaluate alternative forms of service, and we wished to make 'economical' use of the members of a small population and to impose upon them no more than was strictly necessary. It was therefore decided to make a series of small studies relating to particular kinds of questions of special interest.

This decision was also associated with a particular view of the concept of user needs in the context of the sociology of education (see p.3.3). It is plainly essential to have an understanding of overall current information seeking habits (use of SEA in context). In determining the desirable future pattern of our information service, however, we have established as a principle that we will be guided in

---

1. Investigation into the Information Requirements of the Social Sciences. Director: M.B. Line, Librarian, Bath University of Technology.

the main by the 'best' view rather than by the majority view. Our studies therefore have incorporated the 'funnelling down' process referred to in the research proposal. This is not to say that the majority view will be disregarded, but to indicate that knowledge of the present stage of information practices will be used rather to enable us more effectively to assist development to a state which informed opinion in the sociology of education identifies as desirable.

We have relied extensively upon subjective methods, and have been concerned to collect information not merely from a range of users or potential users, but more specifically, from those who are 'concerned' about the use of the literature in relation to the development of the field (i.e. to obtain the 'best' view referred to).

Criteria of kind of performance, as well as level of performance, have had to be investigated. A somewhat open-ended approach seemed desirable in order to avoid assumptions as to the nature of the criteria which sociologists of education apply. The points of interest are the extent to which and the ways in which, in the light of the nature of their work, specialists are or should be prepared to delegate intellectual effort in literature searching to an information service. The aim was to investigate the range of considerations of which future policy should take account, and the relative importance of these considerations, rather than to collect quantitative, statistically significant data.

It was felt that future SEA policy must ultimately be a subjective matter, for decision at editorial level, based on an evaluation of the arguments put forward, and resulting in a statement of policy as to SEA's role within the sociology of education.[1]

---

1. In so far as SEA's editors and abstractors are all sociologists of education, SEA is a part of, as well as a service to, the field.

Such a policy would have regard not only to different intellectual positions, of course, but also to financial, managerial, technical feasibility, organisational and possibly other considerations.

SEA's ethos

A basic problem is that those concerned with the sociology of education do not form a homogenous group. Subgroups include:

(1) sociologists of education working in the sociology of education;

(2) sociologists working in the sociology of education;

(3) educationalists working in the sociology of education;

(4) non-sociologists of education working in the sociology of education (e.g. librarians);

(5) sociologists of education working outside the sociology of education (e.g. with primary professional affiliations to related areas such as administration, counselling - plainly any sociologist of education may have secondary commitments).

SEA is seen essentially as a service for specialists, although the literature of the sociology of education is clearly valuable at a practical level in offering insights into educational problems and practice, and SEA is thus of potential interest to a wide circle of non-sociologists. However the literature presents serious pitfalls to the non-sociologist who may be tempted to regard sociological findings as facts, and to apply them in a range of situations to which they are inappropriate because of a misunderstanding of the actual or theoretical background or methodology to which the findings relate.[1]

---

1. Swift has pointed to other dangers in the misunderstanding of the nature of sociological research, cf. Swift, D. F. and Acland, H. 'The sociology of education in Britain, 1960-1968: a bibliographical review.' Social Science Information, 1969, 8(4), 31-64.

(For example, a study in which educational achievement is found to be inversely related to size of class might be used to argue for large classes, when in fact the relationship could be shown to be the effect of declining neighbourhood and size of school and the findings thus not necessarily generalisable to other contexts.)

It must be assumed that SEA users are either sociologists or will behave like sociologists in utilising its contents, but there is, we believe, a place for a quite different presentation of a selection of SEA material, dealing not so much with the material itself but with its implications for the practical educational situation, possibly even a range of such services. These services could be offered perhaps at a lower subscription than the main service and would be more attractive to those for whom the sociological literature is only one of several literatures on which to draw.

It had been hoped that a study which OSTI considered sponsoring, a study into information use amongst educational administrators, would receive approval. Unfortunately, we understand it to have been deferred sine die. Educational administrators exemplify a group working in a field on which the sociology of education has an obvious bearing. Increasing professionalism is likely to involve more who are serious students of, if not academically qualified in, the sociology of education. Educational administration is now widely taught as an academic study as well as practised. There may be some to whom SEA has a direct appeal, but there are also non-sociologists, who bring other specialisms to the field, who might welcome an alternative presentation such as has been suggested. We have as yet no evidence to support this view, but it is hoped to follow it up in the course of later work.

In general, the function of the present investigation is

seen to be that of studying the recording and storage of information for the specific purposes of sociologists working in education. Only once their primary concerns have been clarified and met, can it be seen how for such concerns are compatible with those of other specialists or those with more general or 'lay' interests, what modifications in treatment would be required to give a fully effective service to such others, and whether the result would be to diminish, beyond a tolerable point, either the effectiveness of the service for sociologists of education or the possibilities of cooperation or interchange of material with other services.

Rationale of studies

The distinction between demands and needs, and between expressed and unexpressed needs is now widely accepted, though we have begun to have doubts as to the value of the concept of 'needs' in the context of a study such as ours. It is obvious that a knowledge of demands, though essential as a starting point, does not alone provide an adequate basis for policy and planning. But equally, the study of needs would not seem likely to provide the appropriate information for this purpose, if by 'needs' we mean that which the user 'lacks that would be "good for him" (or rather, for his work)'.[1]

The implication is that needs in some sense 'exist', and await discovery. Pace Menzel, we do not believe that there are such latent needs, for the simple reason that the discipline is still developing; at the present stage of development in the sociology of education (whatever may be the case in other fields) there is, for instance no consensus as to what sociology of education is (e.g. has it a conceptual 'existence' or is it 'what sociologists of education do').

---

1. Menzel, Herbert 'The information needs of current scientific research.' The Library Quarterly, 1964, XXXIV(1), 4-19.

There is an implication also that the needs to be considered are those of individuals, whereas SEA attempts to distinguish between the needs of individuals and the needs of the discipline or sub-discipline. In so far as such a distinction is meaningful, it is felt that the development of SEA should be geared to the latter.

We are again brought into possible disagreement with Menzel when he stipulates:

> 'The knowledge and insight of information experts cannot be replaced by the judgement of a cross-section of scientists or even of the best scientists.' (Menzel, 1964, op.cit.)

We believe that only with the aid of sociologists of education can we hope to develop a service which will be at all acceptable in terms of 'improving the sociological quality of research in education' - SEA's prime aim. The grounds for this view are:

> 'I welcome the aid of professional documentalists who know the science of processing mass data, who know the problems of classification, who have the technical know-how to utilize electronic equipment with which to reduce the "slavery of clerical behavior" inevitable to the documentation of a field. At the same time, I wish to caution the professional documentalists that sociology is both an art and a science which betrays a range of 'languages' and has not reached a stage - nor will it - in the foreseeable future where the variables with which sociologists work will receive the kind of clarity and symbolic denotation which our brethren, the chemists and physicist have achieved. To this extent, the creation of ex post facto systems of classification or new meta-languages by documentation specialists, though elegant and aesthetically beautiful, involve EVALUATIONS, and this is something sociologists consider to be the essence of THEIR discipline. I am not aware in the history of science that chemists and physicists and botanists and biologists have had 'documentation people' prepare their classifications and symbolic languages. These functions the chemists, physicists, botanists and biologists performed themselves. They set their house in their OWN order. Though meta-languages, classification schemes, hierarchies and principles of data organization are the result of great intelligence, I doubt if they

> will be used by 'intelligent' sociologists.
> It is one thing to create a beautiful house
> for sociologists to live in, it is quite another
> to make them look at it, no less live in it!' [1]

This is not to undervalue the experience of information experts nor that of 'scientific' planning. It is to insist upon a distinction between means and ends; to the extent that means may mould or deflect ends, 'discipline' considerations for us override the 'knowledge' of information experts to which Menzel refers. This view permeates the work of the SEA project.

Content of studies

The various studies are not reported separately (though a general account and/or data on any one of them will be made available to any enquirer). Information from various studies has instead been brought together to answer the broad questions stated above, together with the ancillary questions they generate. Essential details of the various studies (instruments are appended to this report) are as follows:

(1) Analysis of data on subscribers from:

(a) subscription records

(b) records of bibliographical enquiry service offered to personal subscribers.

(2) Use, factors affecting use, and desirable developments in use of information services, with special reference to SEA, amongst College of Education lecturers teaching the sociology of education mainly in education departments.

Sample: about 80 lecturers attending a conference (N119) held by the Department of Education and Science at Walsall, West Midlands College of Education, 8-12 September 1969.

---

1. Chall, Leo P. Documenting sociology. (Paper read at Sixth World Congress of Sociology, Evian, 1966.) Mimeo.

Method: members were divided into 6 groups for group discussion led by chairmen who all worked to the same set of guidelines. All participants had previously been circulated with an information paper, describing and illustrating the present stage of development in published bibliographical services.

(3) Use of SEA in education libraries, other services used in the study of the sociology of education, and desirable developments: a survey amongst education librarians.

Sample: one in three Colleges of Education as listed in the Handbook of Colleges and Departments of Education; all Schools etc. of Education libraries, with the exception of several omitted for special reasons, e.g. close association with SEA.

Method: 2 page questionnaire. Comments on developments structured by sheet of 'points for consideration' similar to guidelines used in (1) described above.

Response rate: College of Education librarians 68%, School etc. of Education librarians 86%.

(4) Use of, and desirable developments in, bibliographical services amongst university sociologists of education.

Sample: all members of the British Sociological Association citing, in the BSA register, the sociology of education as a special interest;[1] 10% of remaining c50% of BSA members who failed to return personal data for inclusion in the register.

Method: 2 page questionnaire, accompanied by list of potentially relevant services and 'points for consideration' in relation to future development as used in (2) above.

Response rate: BSA members known to have interest in the sociology of education 65%; members not indicating interests 66% (of

---

1. Excluding members who had accepted an invitation to attend a seminar (see 5).

these 10% proved to have an interest in the field).

(5) Follow-up study to (3) above, with a self-selected group from the sample who expressed willingness to help us further.

Method: 6 page questionnaire (semantic differential technique).

Response rate: 20% of original sample.

(6) Seminar on acceptability, in terms of discipline considerations, of specific types of indexing, classification and of forms of abstract.

Sample: 22 sociologists of education (11 from Colleges of Education, 9 from Universities, 2 from other types of establishment), invited because of known interest in these areas or allied problems (five non-sociologists of education, concerned in different ways with information problems, also took part).

Method: seminar, study of examples of different types of indexes etc., discussion and series of mini-questionnaires.

Present users

'Who uses SEA at present?' is a deceptively simple question to which there is no simple answer. A first source of information was the list of subscribers,[1] but this could give only an incomplete picture. The subscriptions fall into two categories: individual and institutional. With regard to individuals, some subscribers have SEA sent to their place of work, others to their home, so that we do not always have even minimum personal data. The institutional subscriptions tell us nothing of who actually uses SEA.

The available data indicate that roughly 25% of subscribers are individuals, the remainder institutions. About 20% of individual and 45% of institutional subscriptions are from overseas (28 countries).

---

1. I.e. subscribers prior to SEA's association with Pergamon; details of subsequent changes in the list are not readily available.

Of British subscriptions, the known affiliations of individuals represent: University Departments - 38% (of these 61% are from Education Departments, 32% from Sociology or other Social Studies Departments, 7% from other Departments); Colleges of Education - 49% (few specify Departments); Schools, primary or secondary - 13%.

British institutional subscriptions (in the main to libraries) include the following. University libraries represent 19% of the total; this figure includes some main University libraries but comprises largely the Schools, Institutes and Departments of Education. Colleges of Education account for a further 47%. The remainder includes: educational associations and other specialist bodies - 11%; technical colleges - 8%; Local Education Authorities - 7%; and smaller numbers of Colleges of Further Education, public libraries and booksellers with subscriptions for unspecified customers.

The data from the analysis of subscriptions was supplemented as far as possible by information collected in other studies.

Individual subscribers

A bibliographical enquiry service (see p.3.28), run on an experimental basis in connection with the project, was offered to all individual subscribers. Of the 65% of this group who replied to a small questionnaire, 70% were college of education staff, members of university education departments predominating amongst the remainder.

A check of (a) university members of the British Sociological Association noting a special interest in the sociology of education, and (b) membership lists of several conferences of college of education staff concerned with the teaching of the sociology of education, against our subscriber list, showed roughly equal though low numbers of people with a personal subscription to SEA.

No conclusions can be drawn about the composition of personal subscribers. It may be that those for whom we have no data

are not in fact genuine individual subscribers. In SEA's early days, when there were preferential rates for such subscribers, advantage was taken of this fact by some to obtain copies for libraries or departments through individuals.

No attempt was made to follow this up further since, from the point of view of future development, our intention was to study the needs of sociologists of education in general, and not merely those of present users.

Institutional use

With regard to institutional subscriptions, there are no records which could be used to tell us exactly who uses library copies of SEA, the main type of institutional use. Librarians do not normally lend such a publication and thus do not have loan records, and they are unlikely to keep any record of its use within their library. Questionnaires sent out in library copies were not likely to produce reliable data. Continuous observation over a period of time even in a small sample of libraries was not feasible. It was therefore decided instead to collect indirect evidence and 'impressions' of use.

Librarians in selected Colleges of Education and Schools, etc. of Education (the two main types of institution served by SEA) were questionnaired (see p.3.8). The purpose was to estimate the extent to which SEA is used, based on librarians' observations and on evidence of use. Impressions as to the categories of readers making most use of SEA were also sought; responses were given with caution and have been treated in the same spirit.

In about 60% of colleges and 50% of schools etc. of education, librarians report that SEA appears to be used for the most part 'occasionally'.

TABLE 3.1

USE OF SEA IN SELECTED GROUPS OF LIBRARIES

	Frequently	Occasionally	Rarely/ Never
Colleges	2	20	12
Schools etc. of Ed.	2	6	4

Librarians based this view on their observations, which were supported, for example, by responses as to the degree of wear and tear upon copies of SEA. This view is clearly associated with the extent to which college librarians receive enquiries about SEA (e.g. its whereabouts in the library); schools etc of education libraries receive a higher proportion of such enquiries than do colleges (75%/60% of cases), though usually only 'occasionally'. In all but three of the colleges in the sample the sociology of education is taught as part of an education or sociology course, if not as a full course, but this is often a recent introduction and not necessarily to an advanced level.

The extent to which a journal such as SEA is used may be influenced by its location in the library. It seems that in roughly half the libraries (college or other) SEA is housed with the journals; alternatively in about half it is to be found in the reference section - a few libraries display the current copy with journals, but file back copies in the reference section. It was thought that location in the reference section might be associated with a lower use of SEA, but the extent of use is roughly similar whether this is the case or whether SEA is treated as a journal, which is at the present time its prime function.

Size of library (measured in number of volumes) seems to bear no special relationship to extent of use. It had been

supposed that 'frequent' use might tend to occur in large libraries in which a wider range of books and journals might stimulate the use of SEA, and that use 'rarely or never' would be more typical of small libraries. Alternatively the reverse case might be expected, use of SEA being highest in small libraries as a means of extending limited library resources. Neither supposition was supported.

There appears to be no striking difference amongst types of use (teacher-teaching use, teacher-research use, student use, library staff use).

TABLE 3.2

USE OF SEA BY DIFFERENT GROUPS OF USERS IN LIBRARIES

	Colleges			Schools etc. of Educ.		
	Freq.	Occ.	Rarely/ Never	Freq.	Occ.	Rarely/ Never
Teaching staff (teaching purposes)	4	24	2	1	9	1
Teaching staff (research purposes)	4	22	3	2	9	0
Students	1	16	4	0	6	3
Library staff	2	20	3	2	10	0
Others	0	1	5	0	2	4

The balance between 'frequent' and 'occasional' use is roughly the same within each category of use (over 80% 'occasional' use in each case). The proportion of use to non-use or virtual non-use is respectively 82%, 76%, 50%, 65% in colleges, 83%, 92%, 50%, 100% in the case of schools etc. of education. Lower student use may well be accounted for by difficulty found in using the index, which a number of librarians mention; in some cases it is said to be gradually coming to be more used by students as it is recommended to them by tutors or librarians, and as the study of the sociology of education

gradually develops in the colleges.

How SEA is used

Colleges of education

Evidence about the kind of use at present made of SEA has been drawn from several of our studies. From our discussions with college of education staff it was evident that SEA was used mainly in tracing material for teaching purposes, generally by browsing, or having students browse, through the contents. A small proportion of the group only (25%) were engaged in research as well as teaching. A few used SEA in updating their personal indexes. About 80% had SEA in their college libraries.

It is clear from librarians' comments that, as a body, librarians make every effort to bring the availability of SEA in the library to the notice of their academic colleagues, and that many lecturers recommend it to students as well as browsing through it themselves. It seems that the main function of SEA for students is retrieval, for which in its present form, SEA is not ideally suited. Librarians themselves may use it in selection, in dealing with enquiries or in noting recently published work. But several comment on the lack of time to guide students in the use of SEA, particularly in the understanding of its indexes. One or two note that SEA's extensive coverage may not necessarily be an advantage, in fact it may be 'off-putting'.

Universities

We lack data on use of SEA in main university libraries, but these do not figure largely amongst our subscribers and it is probable that Sociological Abstracts is the main tool used. Librarians of schools etc. of education indicate that use of SEA by academics in their libraries is mainly for retrieval purposes and that

the arrangement and indexing is not found satisfactory. One or two librarians note that SEA is helpful in tracing current material otherwise unnoticed, but for books in particular is not sufficiently up to date.

Our survey of university sociologists of education shows that SEA is used extensively by many (75%), and is used both for 'keeping up to date' (85%) and for retrieval (c80%) (see pp. 3.20 & 3.22). As in the case of the college group, one or two mention the use of SEA to maintain a personal index. Only 38% had access to SEA in the libraries of their own institutions.

For what kinds of use should SEA ultimately attempt to cater?

Investigation of user requirements was at two levels. First, general data on a broad though not necessarily fully representative cross-section of sociologists of education (users and non-users), was derived from several of our studies: (1) to discover the range of bibliographical tools used at present, which might colour preferences or condition use of an improved SEA; (2) to study the kinds of enquiries which may be addressed to SEA, for the same reasons; (3) to discover the general kinds of developments which would be welcomed. Librarians were similarly consulted.

Secondly, detailed views on desirable developments were collected from two groups: (1) a self-selected group completed a detailed questionnaire; (2) a group known to be 'concerned' about problems in the organisation of knowledge, was invited to a seminar in which some of the intellectual aspects of the 'information problem' were examined. The seminar group may be regarded, in relation to SEA, as a reference group.

Bibliographical 'experience' amongst sociologists of education

Few of the personal subscribers using the bibliographical enquiry service reported extensive use of published services, once obvious sources had failed, prior to seeking help.

In the college group with whom discussions were held, the use of published information services was not wide-ranging. Not many were engaged upon research (about 25%). Apart from the use of SEA for browsing, the British Education Index was the only other tool cited (this tended to be used for retrieval purposes). SEA's indexes appeared to defeat most of the group. The information provided by college librarians tended to confirm this (eight out of eleven librarians cited use of the British Education Index by their readers); other tools such as Education Index, Research in Education, were rarely mentioned). Apart from this it seems that the available journals are scanned, but the available journals are limited.[1]

Amongst the university group more services are known (no doubt because a wider range is available - about twenty were listed as an aide-memoire), but in terms of the services used, and in particular used at all extensively (i.e. more than once or twice), the general picture is much the same as in the colleges.[2]

---

1. The lecturer group reported that even such basic journals as the American Journal of Sociology were not in the college library; as another example, hardly any of their libraries were said to subscribe to Sociology.

2. The data are not strictly comparable since circumstances forced us to employ two different methods of data collection.

TABLE 3.3

NUMBER OF BIBLIOGRAPHICAL SERVICES USED BY UNIVERSITY GROUP IN RELATION TO SERVICES KNOWN

Number of bibliographical services used	% respondents		
	Knowing	Using	Using extensively
0	0	3	33
1	6	20	23
2	12	24	24
3	16	10	6
4	12	23	6
5	24	12	6
6	10	3	0
7	10	3	0
8	3	0	0
9	3	0	0
10	0	0	0

(Where rows do ot sum to 100% this is due to rounding off)

About one third have never used any service more than once or twice. Only about 20% have used more than two services (from the twenty or so of potential relevance) to even this extent. Only 7 services are used by 5+ respondents.[1]

1. Infross data indicates that this is typical of university social scientists; 66% of their university respondents used only one service. 13% of their college of education respondents used more than 2 services, 84% used only one.

Librarians cited the use only of the British Education Index and Education Index, together with Sociological Abstracts, in addition to SEA. Sociological Abstracts (SA) was reported as the most widely used service (77%) by the university group, followed by SEA (c50%) and Research into Higher Education Abstracts (RHEA) (40%). Research in Education (RIE) and Psychological Abstracts (PA) jointly occupy 'fourth position' (30%), followed by Review of Educational Research (RER) (27%) and British Education Index (BEI) (23%). Other services were used by 13% or less of respondents and none was used more than once or twice.

TABLE 3.4

KNOWLEDGE AND USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES

	% respondents			
	Known and used	Known and not used	Not known	Totals
British Education Index	23	16	61	100
Review of Educational Research	27	14	59	100
Psychological Abstracts	30	28	42	100
Research in Education	30	14	56	100
Research into Higher Education Abstracts	40	3	57	100
Sociological Abstracts	77	10	13	100
Sociology of Education Abstracts	50	20	30	100

TABLE 3.5

RECENCY IN USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES

	% respondents		
	Using within last 6 months	Not using so recently	Not used at all
British Education Index	20	7	77
Review of Educational Research	14	10	73
Psychological Abstracts	16	14	70
Research in Education	14	14	70
Research into Higher Education Abstracts	28	14	60
Sociological Abstracts	30	43	23
Sociology of Education Abstracts	40	14	50

(Where rows do not sun to 100% this is due to rounding off)

For retrieval purposes (researching a topic in depth), SEA and RHEA are most used (each 37% of respondents); use of the other five most widely used services is rather lower (7-17%). (For table see overleaf.)

Neither SEA nor RHEA are primarily geared to retreival. It may be that the need or preference is more often for a limited and 'manageable' range of closely relevant material and that the more restricted scope and focus of these two services are the reasons for which they are preferred. (RHEA abstracts include a number of reprints of SEA abstracts.)

Respondents also gave information about their use of bibliographical services for exhaustive searches (i.e. searches in which every care is taken to see that no possibly relevant item is overlooked).

TABLE 3.6

RETRIEVAL USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES

	% respondents		
	Using for retrieval	Using but not for retrieval	Not using at all
British Education Index	17	7	77
Review of Educational Research	10	13	77
Psychological Abstracts	13	13	73
Research in Education	13	13	73
Research into Higher Education Abstracts	37	7	57
Sociological Abstracts	7	10	83
Sociology of Education Abstracts	37	13	50

(Where rows do not sum to 100% this is due to rounding off.)

TABLE 3.7

USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES FOR EXHAUSTIVE SEARCHES

	% respondents using:		
	Intensively	Non-intensively (i.e. not exhaustive search)	Known & not using or not knowing
British Education Index	14	10	77
Review of Educational Research	7	16	73
Psychological Abstracts	14	14	70
Research in Education	0	28	70
Research into Higher Education Abstracts	16	23	60
Sociological Abstracts	28	46	23
Sociology of Education Abstracts	27	20	50

(Where rows do not sum to 100% this is due to rounding off.)

It is to be noted that use of RHEA drops considerably when the search is to be exhaustive, whilst use of SEA remains fairly high, probably for scope reasons. Exhaustivity would seem to be taken to signify the identification above all of relevant sociological material, since use of SA leaps from 7% (retrieval) to 28% (exhaustive searching). This might be because a different method of search, to which SA lends itself, is considered appropriate, but discussion with sociologists of education indicates that in the main, for whatever purpose, the preferred method is beginning-to-end scanning. This is time-consuming but not impossible at present.

No preference emerges for any particular type of organisation for retrieval. Those services most used amongst the 'top' services include both alphabetical indexing by subject and systematic arrangement, and varying degrees of specificity in indexing. Preference probably depends much more on the kinds of terms in which documents are described relative to the kind of enquiry in hand (given that the scope of a service is appropriate), than on questions of 'mechanics'.

With regard to current awareness use, SEA, RHEA and SA are used by the greatest proportion of respondents: (For table see overleaf.)

The same two services which, together with SEA (which alone specifically focuses upon the sociology of education), are most used for retrieval are also those most used for awareness. Analysis of individual responses gives little indication that services are used selectively according to the appropriateness of their organisational features for a given type of use. Thus, in cases where, say, BEI or SA are both used for retrieval, it would be on the whole true either that both BEI and SA are also used for awareness or that the respondent does not use bibliographical services for keeping up to date.

An apparent lack of sophistication amongst both college

TABLE 3.8

CURRENT AWARENESS USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES

	% respondents using for:		
	Keeping up to date	Not for keeping up to date	Not using or not knowing
British Education Index	6	16	77
Review of Educational Research	10	14	73
Psychological Abstracts	5	20	70
Research in Education	10	16	70
Research into Higher Education Abstracts	28	16	60
Sociological Abstracts	23	50	23
Sociology of Education Abstracts	36	14	50

(Where rows do not sun to 100% this is due to rounding off.)

and university groups may be due also to the fact that their needs as they see them are limited or are satisfied by other means.[1]

1. Infross data indicates that, of all the methods used for keeping informed of current literature, about 1/3 of both educationalist and sociologist respondents rely on scanning abstracts or journals (about 1/3); personal contacts and browsing(e.g. in libraries)figure less prominently (10-20%). Possibly the emphasis is on journals rather than abstracts. For discovering references to published information in general the use of abstracts and indexes is lower in both groups; library sources are more likely to be used by educationalists, sociologists tend to refer to colleagues.

It is probably in some measure also attributable to the lack of knowledge of the available tools and thus the ability to 'shop around', partly also perhaps to the bewildering variety of services, each with its own system to be mastered by the enquirer. It cannot however be assumed that lack of sophistication in this respect is necessarily a drawback in the work upon which respondents are engaged. The majority report no serious bibliographical problems.

The reference group

It will be remembered that this (seminar)group was selected on grounds of evidence of concern with bibliographical problems. Members were asked to complete the same questionnaire as the university group (which covered the ground dealt with in discussion with the college group), to enable us to make a rough estimate of the typicality of the seminar group in terms of experience in use of bibliographical services.

It was found that SA is the most widely used service (60%), from amongst twenty or so possibly relevant services, amongst the seminar group, the rank order then being RIE (53%), PA (50%), SMA (43%), BEI (40%), RER (33%), RHEA (27%), showing a greater preference for the more comprehensive discipline services.

There is a slightly higher proportion of seminar respondents with knowledge of more than two services, and a considerably higher proportion knowing five or more. About 40% of the seminar group make extensive use of more than 2 services, whereas this is true of only 20% of the university group. (For table 10 see overleaf.)

A slightly higher degree of recency of use is also reported - an average of 23% (university group), 38% (seminar group) usage within the last six months. (For table 11 see p.25.)

TABLE 3.9

KNOWLEDGE AND USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES (SEMINAR GROUP COMPARED WITH UNIVERSITY GROUP)

	% respondents:	
	Using	Not using
British Education Index	40(23)*	20(16)
Review of Educational Research	33(24)	20(14)
Psychological Abstracts	50(30)	20(28)
Research in Education	53(30)	6(14)
Research into Higher Education Abstracts	27(40)	20(3)
Sociological Abstracts	60(76)	3(10)
Sociology of Education Abstracts	43(50)	0(20)

* Nos. in brackets refer to university group.

TABLE 3.10

NUMBER OF BIBLIOGRAPHICAL SERVICES USED IN RELATION TO SERVICES KNOWN (SEMINAR GROUP COMPARED WITH UNIVERSITY GROUP)

No. of bibliographical services	% respondents:		
	Knowing	Using	Using extensively
0	0(0)*	0(3)	6(33)
1	6(6)	6(20)	20(23)
2	6(12)	24(24)	32(24)
3	6(16)	6(10)	12(6)
4	12(12)	20(23)	20(6)
5	6(12)	12(12)	0(6)
6	24(10)	20(3)	6(0)
7	12(10)	0(3)	0(0)
8	0(3)	6(0)	0(0)
9	0(3)	0(0)	0(0)
10	20(0)	0(0)	0(0)

* Nos. in brackets refer to university group.

TABLE 3.11

RECENCY IN USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES
(SEMINAR GROUP COMPARED WITH UNIVERSITY GROUP)

	% respondents: Using within last 6 mos.	Not using so recently
British Education Index	33(20) *	6(7)
Review of Educational Research	7(14)	24(10)
Psychological Abstracts	33(16)	12(14)
Research in Education	40(14)	12(14)
Research into Higher Education Abstracts	14(28)	12(14)
Sociological Abstracts	56(30)	12(43)
Sociology of Education Abstracts	82(40)	6(14)

*Nos. in brackets refer to university group.

Overall use for retrieval is rather higher:

TABLE 3.12

RETRIEVAL USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES

	% respondents: Using for retrieval	Using but not for retrieval
British Education Index	40(17) *	0(7)
Review of Educational Research	20(10)	20(13)
Psychological Abstracts	27(13)	20(13)
Research in Education	40(13)	13(13)
Research into Higher Education Abstracts	27(37)	0(7)
Sociological Abstracts	53(7)	13(10)
Sociology of Education Abstracts	80(37)	13(13)

*Nos. in brackets refer to university group.

SEA figures prominently as a tool for retrieval, followed by SA and to a lesser extent BEI and RIE. With the exception of SEA, these services are well organised (though not perhaps ideally for the sociologist of education) for searching. It may be significant that sociological services are more favoured than educational services. The use of RIE may indicate a stronger research interest.

There is less use of services for exhaustive searching than for general retrieval purposes, as would be expected, though still substantially more than in the university group:

TABLE 3.13

USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES FOR EXHAUSTIVE SEARCHES (SEMINAR GROUP COMPARED WITH UNIVERSITY GROUP)

	% respondents	
	Using intensively	Not using intensively
British Education Index	20(14) *	20(10)
Review of Educational Research	0(7)	33(16)
Psychological Abstracts	0(14)	50(14)
Research in Education	0(0)	50(28)
Research into Higher Education Abstracts	6(16)	20(23)
Sociological Abstracts	20(28)	50(46)
Sociology of Education Abstracts	40(28)	50(20)

*Nos. in brackets refer to university group.

Only SEA, SA and BEI are used much for exhaustive searches. RER, PA and RIE drop completely out of the picture, possibly because they are less appropriately organised in relation to the sociology of education and thus there is a greater risk that relevant

items may be overlooked, though the favoured services are not perfect in this respect.

Current awareness use too is higher in the seminar group:

TABLE 3.14

CURRENT AWARENESS USE OF MOST WIDELY USED BIBLIOGRAPHICAL SERVICES (SEMINAR GROUP COMPARED WITH UNIVERSITY GROUP)

	% respondents using for:	
	Keeping up to date	Not for keeping up to date
British Education Index	28(6)	14(16)
Review of Educational Research	14(10)	20(14)
Psychological Abstracts	20(3)	28(20)
Research in Education	20(10)	33(16)
Research into Higher Education Abstracts	7(28)	20(16)
Sociological Abstracts	33(23)	33(50)
Sociology of Education Abstracts	90(36)	7(14)

Figures in brackets refer to university group.

SEA, SA and perhaps surprisingly, BEI are the most preferred services for awareness purposes. Such a use of BEI may be explainable by the practice of cover-to-cover scanning mentioned earlier. This would seem to be due not merely to a belief in the value of serendipity but to be a practical necessity if the headings used are inappropriate. As with the university group, seminar members tend to use the same service(s) for awareness and retrieval if they use bibliographical services at all for these purposes. The majority reported that bibliographical problems seriously inconvenience them in their work.

It would be unwise to read too much into these data. The number of respondents, despite a good response rate, was small

because the total population is small, and the number of those seriously concerned about such matters is even smaller. Nevertheless the seminar group are clearly shown to be more experienced if not more skilled in bibliographical matters than either the university or college groups and, as a reference group, may thus be regarded as informed advisors. At the same time a broadly similar pattern of use seems to be indicated, possibly rather unambitious, which minimizes the risk that their views on desirable developments may be divorced from the ways in which sociologists of education go about exploring the literature if they attempt to do so via bibliographical services.

In general the great majority do not seem to be at all thorough in their use of bibliographical services, and the mechanics of different systems appear to be ignored rather than utilised.[1] No preferences are evident, of which SEA policy should take account, which can be attributed to anything other than concern about the content of a service, and even preferences of this kind are far from clear.

Types of enquiry

It was felt that it was essential at the same time to collect more detailed information about the actual problems which users address or try to address to SEA, and the kinds of searches

---

1. A highly sophisticated or systematic approach to literature searching may not necessarily be the best or most appropriate approach Time spent in scanning abstracts (or indexes) as a method of retrieval may not necessarily be time which can or should be 'saved'. Organisation for retrieval may inhibit exploration.

they need to make, than it would be possible to gain from retrospective reports. It was originally intended to do this by means of interviews, but the Steering Committee agreed that this objective might be better achieved by running a free bibliographical enquiry service for a limited period.

They, and we, had one fear - that if the service received a flood of requests the researcher would have no time for other activities - but it was decided to take the risk. In the event this fear was not realised. During the period of this experiment (May - November 1969) we received merely a thin trickle of enquiries.[1]

Twelve requests for help were received in all, coming from five of the sixty to whom the service was offered. The small number was in a sense a relief, since each enquiry took 1-2 days to research at least. It was stressed in the letter of announcement that this was not intended as an alternative to library searching but should be regarded as the equivalent of consulting a colleague in case of difficulty <u>after</u> the available documentary sources had been exploited.

The range of enquiries covered topics within the fields of educational administration (1), social psychology of education (2), the family (1), sociology of higher education (6), education and migration (1), sociology of teaching (1). The purposes for which bibliographical references were needed included:

---

1. Use of such a service probably builds up rather gradually; it was not possible to extend the length of the experiment but nearly as many requests have been received since the closing date as were received during the period of the service.

Research projects	- preliminary literature survey	3
	- intermediate stages (exploring patterns emerging from data collected)	2
	- writing up	2
Higher degree	- information on research instruments	1
Preparing a paper		1
Teaching and seminars		3

The enquiries received, as compared with the bulk of 'library' research, whether carried out by librarians or readers themselves, necessitated exhaustive searching for the most part. Also, whereas with library problems there is usually some starting point - a recent important paper, a survey, an author known to be an expert in the given area - these problems were 'from cold'.

There seems to be no difficulty in defining such problems quite precisely, but either the subject area cuts right across the usual boundaries or the concepts are more specific than are indexed in the normal range of bibliographical services available in libraries and reasonably adequate for a large number of enquiries.[1]

A brief questionnaire was sent at the close of the experiment in November to <u>non-users</u> of the service (the majority of the group), of whom 57% responded. They were asked:

1. Why they had made no use of the service.

---

1. Infross findings indicate that nearly half of the sociologists and educationalists amongst their respondents have difficulty either with verbalising concepts or finding the terms by which they are described in subject indexes (more commonly the latter), and 17% have problems with both.

2. Whether they thought such a service desirable as well as more detailed indexes.

3. For what kinds of purpose it would be desirable.

Reasons for non-use of the service (not of course mutually exclusive) included: no problems (various reasons given)(45%); problems, but local sources adequate (10%); problems outside SEA's scope (8%); other (e.g. no time; cancelled subscriptions because of price increase; thought it was an SDI service; not engaged in research at present; no longer interested in the sociology of education)(33%). 44% of these respondents would like a service of this kind as well as detailed indexes; 10% thought it would be unnecessary; the remainder gave no definite reply. Although nearly half experienced no literature searching problems, some at least would seem to welcome either a personal search service or the tools with which to do the job themselves, and cover-to-cover scanning was not ruled out.

The kind of material which was said to be most difficult to trace was that of indirect relevance. The need to identify indirectly relevant material seems to be especially evident in relation to the type of problem in which the enquirer is attempting to break new ground rather than to acquaint himself with work in well researched areas. There is probably a higher proportion of such enquiries in any developing area of study than in more long-established areas; this is likely to be a question of stage of development rather than a peculiarly social science problem.

Another problem mentioned several times was the need for material with a particular slant e.g. preparing a new lecture course on the sociology of the family for a joint teacher/social worker course. There seemed to be little difference between teachers and researchers in the types of problems which presented real difficulty.

A number welcome a service such as SEA for knowledge of wider resources than are locally available. One or two refer to its value for a more specialist approach than most other sources can offer - instancing aid in evaluation so that time is not wasted on 'trivia', in bringing to light material which is not immediately apparent as bearing on the educational problems studied by sociologists, and in suggesting acceptable alternatives when required material is not locally available.

It had been hoped that a project elsewhere[1] to collect and pool information on the use of education libraries would provide data on the more 'run of the mill' enquiries and the bibliographical sources to which they are addressed, but it has not been possible to launch this project.

In terms of the range of enquiries for which SEA may be used, it seems reasonable to assume that there is a fair proportion of general library research of the kind in which a selection of material on a fairly broad topic is required, and perhaps a lower proportion of 'awareness' use at the general interest level. We have some experience of this kind of work in the Library of the Oxford Department of Educational Studies.

It is no doubt true that present use of SEA, and other services, is conditioned by the kinds of use to which the services lend themselves. There will probably always be many whose approach to the literature is relatively undemanding. Compared with university sociologists of education, those in colleges of education

---

1. Preliminary plans were discussed in outline by Librarians of Institutes and Schools of Education (LISE).

stressed that factors such as teaching load, allowance of time for research, access to library resources[1] constitute considerable constraints upon individual intellectual activity (as distinct from contact with students).

Similar comments were made by college and university non-users of the enquiry service (only 10% took advantage of the service), who referred to pressure of commitments such as administration, to different patterns imposed by different levels of work and the view was even put forward, by one respondent, that bibliographical activity is an improper use of time during term. A peripheral rather than a central interest in the sociology of education was found amongst some non-users of the enquiry service.

The bibliographical enquiry service provided us with a number of instances of the kinds of enquiries which users would like to be able to address to SEA (about 50% of non-users offered comments, apart from the 10% who sent actual enquiries). It is clear that an undemanding approach to the literature does not mean that approach to a bibliographical service will be undemanding (e.g. the bibliographical enquiry service non-user respondent who would use SEA to trace substitutes for works not readily available to him would have quite a precise idea of the requirements any substitute should satisfy). Some users (probably an increasing number as work in the field advances) were investigating quite specific problems, often combining a need for documents with a need for information (e.g. differences amongst school teachers which approximate to the differences between locals and cosmopolitans

---

1. Interlibrary loans were not felt to offer an adequate solution to this problem.

found in other researches). Enquiries of both kinds are probably represented amongst the use of different services, reported earlier (see p.3.17), even amongst 'the unconcerned' respondents and despite the problems of search strategy, if a total scanning method is adopted.

The latter kind of enquiry is likely to come from the user who is attempting to break new ground, seek new syntheses of data or ideas. He may be very much in the minority (data from our service was intended not to quantify but to identify kinds of enquiry), which in a developing field is the question in which we are at this stage primarily interested. Our present data is inadequate to give us more than a general idea of the range of enquiries which may be addressed to SEA. Further investigation into this question is planned.

Views on criteria for an improved service

The object of this part of our work was to discover personal preferences as to form and content of an improved service of which account should be taken in policy making. In the light of these data, together with that on use of existing services and types of enquiry, a range of suggestions was put to the 'concerned' group for comment and actual examples of different forms of indexes etc. were presented to the seminar group for comment.

With regard to criteria to which 'the ideal service' would conform, views were invited on coverage (boundaries, selectivity), form of abstract or other type of description, arrangement of abstracts, form of subject index, other features. Respondents to the questionnaire to BSA members and to librarians all received the same guidelines as to the general questions in which we were

particularly interested.[1] The structure was that used in discussion with college lecturers and also, although more specific questions were asked under each of the headings, in the optional follow-up questionnaire to BSA respondents.

The general view

A wide ranging but selective service was generally favoured by the broad groups initially contacted, although criteria of selection varied, except in the case of college librarians who did not want selectivity. There was a plea for evaluation of material included. Comments suggested that SEA already contains more material than people feel they can handle, and that any measures to reduce the amount of material to be considered in relation to its potential interest would be welcomed. The problem of access to much of the material is a recurrent theme.

A general preference was noted, except amongst some school etc. of education librarians, for brief abstracts. These should preferably be broadly grouped by subject and accompanied by an alphabetical index (2/3 of respondents would like detailed indexing, whilst 1/3 would like rather broad indexing). Librarians tend to stress the importance of the appearance of abstracts as soon as possible after publication.

---

1. This part of the enquiry was an open invitation to those who wished to comment; we did not want response for the sake of response from those who really had no views.

Views of the 'concerned' as to criteria

Those who gave their views in more detail in the follow-up questionnaire favoured a more restricted coverage (perhaps because of more specialised interests), excluding 'background' material, but they wanted exhaustive coverage within the agreed boundaries. 'Journalism' might be excluded but 'academic' work should not be passed over on quality or any other grounds. Their views on treatment were inconclusive; they tended to see treatment varying in relation to the nature of the document. There was a slight leaning towards approval of evaluative comment, but the abstract should basically be an objective representation of the original, well organised under sub-headings.

Broad subject arrangement of abstracts, with detailed alphabetical subject indexing was generally favoured. There was no great insistence on speed of publication of abstracts.[1] Retrieval facilities are important and high discrimination is wanted, but this group would still want to consult the originals to assess relevance.[2] (The detailed analysis of responses will be made available to any interested enquirer.)

---

1. Infross findings indicate that nearly 2/3 of both educationalists and sociologists amongst the respondents would like abstracts published within 6 months of publication of the original, roughly 30% within 3 months and 10% within one month. Nearly half of both groups state that it is very important to know very soon after publication what is being published, and about a third in each case regard it as moderately important.

2. Both educationalists and sociologists amongst Infross respondents report use of a range of libraries; roughly 2/3 of each group use 3 or more libraries.

In general the differences in preferences between the 'general' and the 'concerned' view are differences in emphasis rather than in kind, the 'unconcerned' group wanting a higher degree of guidance as to what is important as well as to what is relevant in terms of subject matter, but there is no technical incompatibility. The kind of service they both have in mind is of a conventional type, modelled on existing abstracting services such as SA (which they mostly know even if they do not use), with the addition of a grading as well as a sorting process further to reduce (for a variety of reasons) their contact with the literature.

SEA criteria in relation to the needs of the discipline

Whilst individual preferences of users represent a major factor in policy decisions, it must be remembered that also of importance, indeed of overriding importance in the SEA view (see p.3.6), are the 'needs' of the discipline, though as far as possible the two should be reconciled. As Chall[1] points out, the processing of sociological literature necessarily involves participation in the academic debate. It is for this reason that SEA is more than a service to the discipline and is rather to be regarded as a part of the discipline. As such it has a responsibility to gear its development as an IR system to 'desirable' developments in the discipline. It will be recalled that the sociology of education is seen essentially as sociological study (see p.3.4). If SEA is effectively to support such study it should not only be acceptable to the user in practical terms of convenience in use; the methods of information processing adopted must also afford a treatment of its material which is intellectually

---

1. Chall, Leo P. op. cit.

acceptable in sociological terms. The sociologist is, for SEA, the arbiter, and at the present time even such important questions as ensuring consistency in treatment are for us secondary to the intellectual problems to be explored with regard to the nature of treatment appropriate to the material.

Intellectual problems

It is a truism to note that natural scientists have agreed ways of categorising and describing the phenomena in which they are interested. The indeterminate boundaries of social science fields have often been the subject of comment[1]. This indeterminacy is a consequence of the fact that a social science discipline does not deal with a 'special class of empirical data; instead it deals with data as interpreted within a special type of conceptual framework'[2].

There is fairly general agreement as to the subject matter of, for instance, sociology, but this does not alone constitute a description of the field; other social sciences cover much the same ground. The distinctive characteristic of a social science discip-

---

1. Line, M.B. Investigation into information requirements of the social sciences: report of the preliminary stage September, 1967-March, 1968. Bath University of Technology, 1968.

2. Smelser, N.J. 'The optimum scope of sociology' in: Bierstedt, R. ed. A design for sociology: scope, objectives and methods. Philadelphia, American Academy of Political and Social Science, 1969. (Mono. 9 in a series sponsored by the American Academy of Political and Social Science.)

line is the kind of conceptual model employed, in particular the unit of analysis.

The sociologist and the psychologist, for instance, may deal with identical social situations yet, by virtue of a concern with the structure and functioning of human groups, a sociological analysis is quite distinct from a psychological study, the focus of which is the behaviour of the individual. Whilst it is true that the individual person is both an element of the social process and an 'entity' responding to it, there is a conceptual difference between studies of the ways in which the individual as an 'entity' may influence social processes and studies of the individual's response to social situations. The former add to our understanding of the mechanisms of social processes, the latter to our understanding of the functioning of the individual person.

Swift[1] warns of possibly difficulty: 'Because we are so used to individuals as concrete things we find it easy to talk in terms of the individual level of abstraction. On the other hand, because the group is not a concrete thing[2] we often find it a difficult idea to deal with ....'

---

1. Swift, D.F. The sociology of education: introductory analytical perspectives. London, Routledge & Kegan Paul, 1969.

2. 'In order to have utility for sociological analysis, a definition of a group must refer to an integrated social structure rather than a mere category of individuals [i.e. a collection of people together is not necessarily a group, and a group may be geographically dispersed].' Gould, J. and Kolb, W.L. eds. A dictionary of the social sciences. London, Tavistock Publications, 1959.

We feel these kinds of distinctions are important from the point of view of information processing, in so far as such processing is concerned with information and not merely with 'concrete things'.

Also, although some SEA-relevant material (relevant as raw data) is concerned with either description or prescription, sociology is essentially concerned with explanation. The selection of the variables which will be studied in any analysis, and the way in which these variables are defined, depend upon the individual's conceptualisation of the situation he is studying[1]. Since a sociological study has no meaning without reference to this individual frame of reference (see p.3.3), descriptions of a given study, divorced from this context, should be seen not merely as relating to data rather than information but to be potentially misleading if taken to refer to information[2].

Probably most would agree in principle that representations of individual documents should reflect the perspective of the writer as well as the 'concrete things' with which he deals. The differences may be quite subtle and go unrecognised. Compare the concepts of foreign birth and foreign born people in the following example:

> 'The logically clear fallacy of inference from an aggregate to the individual has been shown to hold in actual research when Robinson (1950) tested an hypothesis that since educational standards are lower for the foreign-born, there ought to be a positive ecological correlation

---

1. Meehan, Eugene J. Explanation in social science: a system paradigm. Homewood, Illinois, Dorsey Press, 1968.
2. Swift, D.F. 'Recent research in the sociology of education' in: Department of Education and Science Report of the joint DES/ATCDE conference on the sociology of education in colleges of education held at West Midlands College of Education, Walsall, 7-11 Sept., 1969.

> between foreign birth and illiteracy. However, when the data for groups in census areas were analysed, a negative correlation was found to exist between the proportions of foreign-born and the proportions of illiterates. When, on the other hand, the data were analysed in terms of INDIVIDUALS, a positive correlation was found. The point is, of course, that the ecological characteristics of groups have no necessary connection with the relationships of these same characteristics in individuals.' [1]

It is less obvious that reflection of perspective is a primary consideration in the grouping of related documents. It may be argued that an empirical-world oriented scheme is (a) more helpful to users, since this is what users are primarily interested in, irrespective of discipline affiliation, and (b) a more appropriate treatment of the literature, since documents deal with the same 'things' though from different perspectives. These arguments have a particular appeal in a field such as the sociology of education in which 'practitioners take the knowledge and theories evolved by the pure scientists and apply them to the solution of practical problems[2].

The following counter-arguments may be put forward. In the first place, whilst practitioners are undoubtedly largely concerned with practical, technical and administrative problems and with problem-related data which will provide an immediate basis for decision-making, the primary interests of sociologists of education lie in sociological problems, of economists in economic, manpower etc. problems and so on,

---

1. Swift, D.F. op. cit.

2. Swift, D.F. The sociology of education: introductory analytical perspectives. London, Routledge and Kegan Paul, 1969.

though additionally, it is hoped[1] that sociological etc. study will help to solve practical problems. Thus a scheme allowing for a discipline (e.g. sociology) approach rather than a mission or problem (e.g. education) approach is to be preferred by specialists. Moreover, bearing in mind the now familiar distinction between data and information, it could be highly misleading to present, as 'information', sociological findings divorced from their conceptual context (cf. example on p.3.4).

With regard to argument (b), let a sociologist reply:

> ' ... sociological explanation has to be defined not as the relation between two different classes of things - theories and facts - but as a relation between two conceptual frameworks. It consists in comparing the linguistic and conceptual conventions by which we organise the phenomena that we call the empirical world with the linguistic and conceptual conventions by which we organise the phenomena that we call ideas. ... This kind of conclusion is somewhat disturbing to those of us who like to think of a 'real world' that is separate from our ideas about it; but it is more in keeping with the ways in which experience is organised and scientific investigation proceeds.' [2]

If then the 'empirical world' view is merely one amongst a number of conceptual frameworks, and the observable just another unit of analysis, this offers no common ground for the purposes of intellectual organisation. We are therefore faced with a range of alternative sets of abstractions each representing a different way of analysing the real 'real world' and thus as concepts (without entering the nominalist/realist controversy[3]) relating to different 'things'.

---

1. Swift, D.F. op. cit.

2. Smelser, N.J. op. cit.

3. Acknowledgement is due to L.E. Watson (of Sheffield Polytechnic) for a lucid exposition of the pitfalls yawning before those who venture therein.

As Buckley[1] points out, we are now

> ' ... beginning to take seriously, and as not incompatible, the principles of the continuity of nature on the one hand, and the emergence of qualitatively different wholes on the other. Each of the basic scientific disciplines can be seen to treat as its unit of discourse some kind of whole whose parts constitute the wholes studied by the discipline on the next lower level of integration, and which in turn becomes only a component of the whole treated on the next higher level. This viewpoint seems not so problematic at the lower levels of the atomic nucleus, the atom and the molecule, but encounters increasing resistance as we reach higher levels of the complex organism, the species, the ecosystem, and especially the human society.'

Sociology deals with abstractions from the 'real world'

but there should be in principle no difficulty since, as Buckley says,

> 'it becomes increasingly difficult for any discipline to claim that it is dealing with a 'real entity' or 'substance' while another's subject matter is an abstraction or mental construct. And should the practitioner of any discipline claim that the unit of focus on the next higher level must be explained basically in terms of his unit of analysis, then he must be prepared to give up his own autonomy in the face of the similar claims of the discipline just below him. The end point of such an argument, of course, is the not very helpful evaporation of everyone's unit of analysis into a swirl of electromagnetic fields and nuclear forces.'

Ancillary problems for information processing, inherent in the sociological literature though by no means peculiar to sociology, may be mentioned more briefly. Social situations by their nature are compounded of a considerable number of variables[2]. Gould and Kolb[3]

---

1. Buckley, L. ed. Modern systems research for the behavioral scientist. Chicago, Aldine Publishing Co., 1968.

2. Nagel, E. The structure of science: problems in the logic of scientific explanation. N.Y. Harcourt, Brace and World, 1961.

3. Gould, J. and Kolb, W.L. op. cit.

note that under conditions of controlled experimentation it is usual to refer to the independent variable, which under manipulation produces changes which are to be associated with changes or differences in the dependent variable, but 'this clear cut direct relationship between two variables has, however, been a most evasive goal for social scientists'. The principal reason is the difficulty of identifying and controlling other relevant variables. Not only may the number of variables be great but their interrelationships may be complex - the simple paradigm of causal relationship is seldom appropriate to sociological analysis. To be effective in terms of intellectual acceptability, an IR system should, in the SEA view, accurately reflect this complexity.

It follows also that problems of terminology should be approached with caution. In a field dealing with abstractions, it is essential to have regard to the writer's definitions of the terms he uses. Subtle distinctions may be crucial to an understanding of the 'meaning' of a document, vis à vis others dealing with the same empirical world situation. Standardisation in use of terminology, whilst a long term ideal, should not be imposed artificially for so-called convenience - the basis must be a conceptual one agreed upon by specialists. Terminological control without conceptual clarification is not likely to be helpful to specialists - it may indeed be harmful.

Fowler's[1] comments on 'sociologese' are amusing, but at the same time, the use of 'jargon' which makes necessary conceptual distinctions and which does represent a strictly technical use of language for a valid purpose should be respected. The use of

---

1. Fowler, H.W. A dictionary of modern English usage. 2nd ed. revised by Sir Ernest Gowers. Oxford, Clarendon Press, 1965.

'abstractitis' to which Fowler also refers may be similarly necessary, though it is no doubt often true that the writer 'may end by concealing his meaning not only from his readers but also from himself'.

A particular kind of distinction of which we have become conscious, and which we feel to be important, is that between specialist or technical and 'everyday' use of a term. The sociologist's use of a term such as 'role' is a reference to something quite different from that in the mind of the non-sociologist. The latter refers to something much closer to 'function', whereas, to the former, role may be defined as 'an aspect of social structure ... a named social position characterised by a set of (a) personal qualities and (b) activities, the set being normatively evaluated to some degree both by those in the situation and others'[1]. So, for instance, two documents, both accurately described as dealing with the role of the teacher, may deal in fact with different 'things', and need to be distinguished as such if both sociologist and non-sociologist are not to be referred to a proportion of (to them) non-relevant material.

Appropriateness of existing techniques of information processing

In considering the feasibility of different techniques of information processing in relation to the intellectual problems of the sociological literature, SEA's prime concern, it is impossible wholly to separate abstracting, indexing and classification as information processing activities, since these represent successive reductions of the content of a given document and not 'different' activities. However, since specific techniques are involved, they may be considered separately for convenience, though the same

---

1. Gould, J. and Kolb, W.L. op. cit.

considerations (e.g. control of terminology as far as is appropriate) apply in each case. The following sections contain an account, under these broad headings, of our thinking at the present time based, in consultation with sociologists, on (a) study and experiment with different techniques, both in-house and in cooperation with others, and (b) examination and discussion of examples illustrating different types of techniques with a self-selected (by virtue of a concern with the 'information problem') group of sociologists in a seminar situation.

The range of questions studied by the seminar group was similar to that upon which other groups were asked to give their views. The seminar situation, however, allowed detailed discussion, and members could question each other about the propositions upon which their views were based.

The object was to consider the feasibility of different kinds of alternatives, not to evaluate specific alternatives - evaluation of the latter kind will only be appropriate when more detailed work has been done upon the intellectual basis required effectively to process our material as information. The seminar was convened to give us the views of subject experts as to the approach(es) which merited studying in this greater detail. These views were not seen, either by SEA or by members of the seminar to offer definitive guidance but rather to add to our knowledge of the range of views to be considered.

Members were presented with specific examples of abstracts, indexes etc. (about 100 documents were processed in various ways) for close examination and comment. In this way it was possible to go beyond general statements of principles, and to consider the practical effects of such principles and their acceptability in the SEA context.

All received a folder containing the following material, accompanied by papers giving technical description:

Abstracts (classified and serially numbered)

Author Index

Subject Indexes
- ERIC-style Index
- Faceted Index
- Articulated Subject Index
- PRECIS Index

Indexes by Journal and Publisher

General Information
- Outline of Subject Arrangement
- List of Headings and Cross-References
- Diagrams - Concepts and Conceptual Links
- Scope and Size of Annual Volume

The group was given a brief overview of the materials and the ways in which items could (and could not) be used, and questions were answered. Various 'exercises' were worked; these were designed to give members insight into different approaches to information processing.

In the following sections SEA'S in-house study of intellectual problems and the views of seminar members are in turn reported.

(1) Subject indexing

(a) In-house study

SEA's present study areas indexes (educational and sociological) have not found favour with users. No research was needed to discover this fact; it was abundantly evident from unsolicited comments. For some purposes the system is too broad (e.g. the heading educational and scientific institutions attracts in each issue some 100 references), for others too detailed (e.g. subdivisions of curriculum). It is, in principle, possible to use the indexes in a post-coordinate fashion, but users find it too complicated for convenience.

Neither of the schemes was intended for bibliographical purposes. It will be seen that the 'facets' of the educational scheme are not mutually exclusive (cf. topics associated with counselling). The

sociological 'facets' are not fully enumerated so that those with less sociological background have difficulty in deciding in which conceptual area to search for specific concepts (e.g. role) and we have found that abstractors are sometimes inconsistent in the way they deal with such concepts. There is also overlap between the two schemes (cf. social relationships/interpersonal relationships) which in the absence of clear definition of the difference in scope of these terms (primarily a question of level of analysis) may be confusing.

In the course of preliminary thinking and study of alternative indexing systems we formulated the following requirements:

(a) Indexes should be suitable for manual searching by users, often unaided by librarians.

(b) Indexes should be capable of production by computer, even if at least for the time being SEA's indexes are manually produced.

(c) Preparation of input should, since indexing like abstracting is regarded (in view of the problems described) as a matter for subject specialist judgment, be a process in which sociologists, who give up their own time to contribute to SEA and who are amateurs at indexing, can participate with a minimum of instruction.

(d) The mechanics of the system should be such that there is no distortion of the material, either in representation of individual items or of collections of material.

(e) Control of terminology is essential (experiments we carried out showed that the use of natural language is not effective in such a 'soft' subject area as the sociology of education).

Apart from various systems of the KWIC (keyword in context) family, and given that we had not the resources to produce our own complete new indexing system, the three main systems available are the articulated subject index[1] being developed by Dr. M. Lynch of the Sheffield Postgraduate School of Librarianship and Information Science, the PRECIS system[2] being developed by Derek Austin for the British National Bibliography and the system developed by E.J. Coates for the British Technology Index[3]. Of a different kind are indexes using the ERIC (Educational Resources Information Center) thesaurus of descriptors[4]. Finally D.J. Foskett has experimented with the production of a classified index by rotation of terms in entries in a faceted catalogue[5].

---

1. Armitage, Janet E. and Lynch, Michael F. 'Articulation in the generation of subject indexes by computer.' Journal of Chemical Documentation, 1967, 7(3), 170-178.

2. Austin, D. and Butcher, P. PRECIS: a rotated subject index system. London, Council of the British National Bibliography Ltd., 1969.

3. Coates, E.J. 'Computer handling of social science terms and their relationships' in: Council of Europe, European documentation and information system for education, Vol. III Technical Studies. Strasbourg, Council of Europe Documentation Centre for Documentation in Europe, 1969.

4. Educational Resources Information Center Thesaurus of ERIC descriptors. Washington, U.S. Department of Health, Education and Welfare, latest ed.

5. Foskett, D.J. 'The London education classification.' Education Libraries Bulletin Supplement 6, 1963.

The following discussion of alternative kinds of indexing system, each of which satisfied requirements (a) and (b) relates merely to technical features of the different systems, requirement (d). Questions of intellectual organisation of the literature of the sociology of education, requirements (c) and (e) (including e.g. structure of cross-references in alphabetical indexes) are considered in the following section. It may be argued that this is an artificial distinction, but the seminar was organised in this way so that, for instance, disagreement over collocation of topic A with topic Z in a classified index could be isolated from disagreement with the value of the technique of systematic arrangement as an aid to searching the literature. The same concept analysis of a document formed the basis for the entries in all the sample indexes and as far as possible the same terminology was used in each.

It must be stressed that we had to consider each indexing system at two levels:

(a) as a member of a type (alphabetical/classified, pre-/post-coordinate);

(b) as a unique system (i.e. as set up by its designer), embodying an individual set of values about desirable and viable qualities in indexes, and designed to achieve a particular range of performance.[1]

---

1. E.g. the ASI was developed with scientific material primarily in mind, the Precis system was developed for use in a service handling books, but not, at the present time, items in journals.

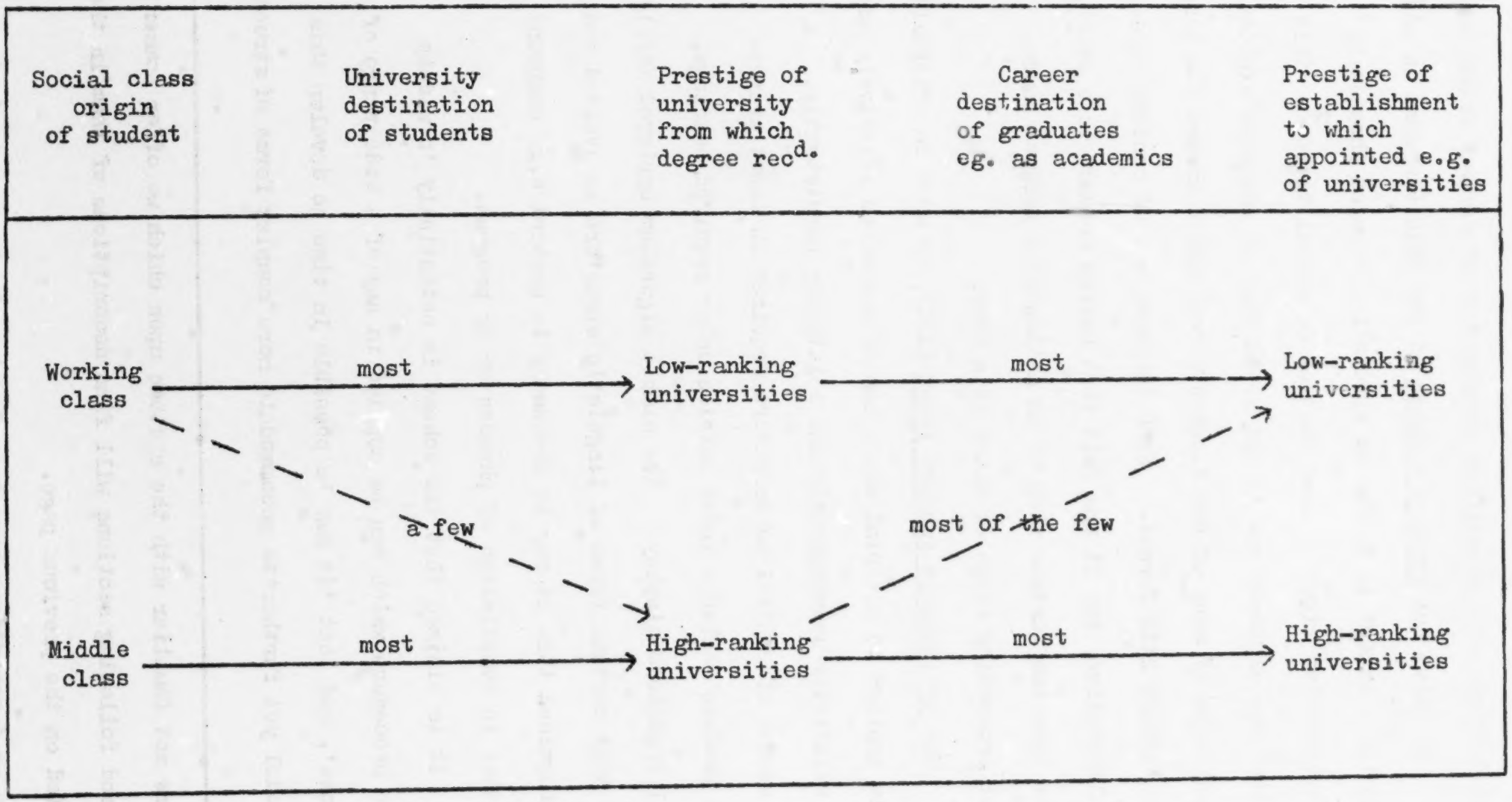
In experimental work we have attempted to study how far our material can be treated appropriately within given individual systems, not how to fit our material into the preferred pattern of the system designer, though we have, of course, been bounded by the characteristics of the type of system represented by each. In so far as the results are at variance with the values and intentions of the system designer, this should be attributed not to the system but to the use we have made of it. Equally, however, judgment of the results should be on the basis of (a) the validity of our views as to the way in which our material should be treated (implicit in the following appraisals of different systems in the light of our needs) and (b) the effectiveness with which, in the eyes of sociologists of education as arbiters, an individual system has been exploited to produce an index of a certain type suited to use by sociologists of education (views of seminar group reported on p.3.79).

Thus, for instance, it has been found that in many cases an accurate description of a document can only be a detailed one in that, if subjects are not analysed in depth, descriptions are either incomplete or so general as to convey no useful information. E.g. a study (SEA, 6(1), 30) of 'Social class origin and academic success' is one of a great many on the general topic of social class and achievement. A distinguishing feature of this study is that 'success' is broadly defined as entering a prestigeful occupation and, 'using the academic profession as an example of a prestigeful occupation', is defined therefore for the purposes of this study as 'holding positions at top-ranking universities'.

Additionally, the study, in dealing with social class origin, focusses on two specific systems of stratification, in recruitment to high-ranking universities of those having attended low-ranking universities (the latter tending to draw students from lower classes), and in recruitment to high-ranking universities from high-ranking universities (appointment tending to be associated with social class). A more specific description than 'social class and achievement' would be 'social class origin and equality in occupational opportunity'; the actual situation investigated was 'the possible association of university attended and social class origin with appointment to posts in prestige universities'. Neither fully conveys the significance of the study as one of 'social stratification, resulting from an association (direct or indirect) between social class origin and career opportunity, as perceived in the recruitment of personnel to prestige establishments e.g. prestige universities'. (See figure overleaf)

The effective system should enable the subjects of documents, analysed to the satisfaction of subject specialists by subject specialist abstractors (some subjects are less, some more complex), to be conveyed without distortion, fully and without ambiguity to sociologist of education users.

FIGURE 3.1 ANALYSIS OF CONTENT OF SEA ABSTRACT 6(1), 30



200

The coordinate indexes may be contrasted with postcoordinate, and alphabetical with classified arrangement of subject statements.

We ruled out keyword indexes of the KWIC (keyword in context) family[1], except in so far as specially prepared phrases or 'translated' titles might be used instead of actual titles[2]. This possibility was explored but it was found that an adequate expression of the subjects of many of our documents required a phrase too long for the standard KWIC format. KWOC (keyword out of context) indexing was an alternative, but it was felt that having reached this point, one might take the further step to an articulated subject index, the first processing stage of which is a KWOC.

The articulated subject index (ASI), as used in scientific fields, is applied to material which can be described relatively concisely, relatively unambiguously and relatively consistently. A minimum amount of control is therefore required in input preparation to produce reliable index entries under required headings, in a well organised display. The simple algorithm employed merely requires that certain forms of linguistic structure be avoided and it is recognised that it may be necessary to control e.g. compound terms either in compilation of phrases or by program.

It is claimed that the scheme is potentially 'a widely adaptable procedure which can be applied in any of a wide range of disciplines', and that 'it may be possible in time to develop this simple model yet further to accommodate more complex forms of structure'[3].

---

1. Readers not familiar with the systems upon which we offer comment in this and following sections will find descriptions of them in the works cited on p. 3.49.

2. Titles as descriptions have been found to be inadequate (see p.3.118).

3. Armitage, Janet E, and Lynch, Michael F. op. cit.

It seemed to us highly likely that our material would bring to light problems not encountered in science fields but that by a greater effort in preparation of indexing phrases, such as is demanded by many indexing systems, the program would at the least offer facilities for the automatic generation and organisation of required index entries. We felt too that we might be of assistance in the further development of the system.

In the course of experimental work carried out in cooperation with Miss Janet Armitage, of Dr. Lynch's team, a number of problems emerged:

(1) Standardised terminology was essential.

(2) The complexity of the subjects dealt with in our material leads to much longer phrases than is common with scientific material and thus to index entries which demand more effort on the part of the user to transpose to their original form. (Such subjects cannot normally be treated adequately by using several short phrases instead of one long one.)

(3) There is frequent occurrence of coordinate concepts e.g. Reliability of differentiation in verbal reasoning, vocabulary and personality, as means of prediction of performance amongst college of education students. There are two system devices for this situation: the writing of separate phrases or the 'ampersand' program facility[1], which distinguishes between 'and' as an

---

1. Only recently available.

articulating device and 'and' as a coordinating device, and in fact generates separate phrases. This is appropriate when the items joined by 'and' are treated separately and consecutively, but not in cases where the items are treated concurrently although for some reason it is not possible to specify their relationship one to another. The inability to specify 'nested' terms as entry points except to one level is a disadvantage, e.g. (economic (political and (social change))) is not allowed.

(4) There is frequent occurrence of compound terms of two kinds: the complex noun phrase[1], which may include up to three or more component terms (e.g. ideal self concept, disadvantaged family environment), and the phrase linked by preposition(s) (e.g. perceptions of role of teacher, attitudes to teacher). The two are sometimes alternative forms (e.g. teacher role) but not always (e.g. 'teacher attitudes' is not the equivalent of 'attitudes to teacher'). Both kinds of phrase can

---

1. It is our impression that sociological writing contains a higher proportion of nouns than most other writing, and that nouns are often used where other parts of speech or another grammatical structure would strictly be more 'correct' (e.g. 'achievement' in 'achievement motivation'). This is not, however, supported by the investigation of F.E. Cheeck and M. Rosenhaupt 'Are sociologists incomprehensible? An objective study.' American Journal of Sociology, 1968, 73(5), 617-627.

sometimes become split in a misleading way, and beyond a certain level of complexity recent program modifications do not solve these problems.

(5) A further complication is caused by the fact that the subject area with which a document deals is not the only factor of concern to our users. Two documents may deal with precisely the same problem (e.g. one an airing of opinions, the other an empirical study) but only one will be relevant for the user's purpose. We therefore found it necessary to include appropriate qualification in the description (e.g. comments on, preliminary report on). However the selection of most frequently used words is an important system principle in organising the display. Such qualifying terms, which we would not wish to bring to the fore as 'sub-headings', are selected in this way because of their frequency. Some alternative principle by which terms with greater information content are selected would be preferable.

These are all problems of which account may perhaps be taken in the further development of the system. For our immediate purposes in preparing sample indexes (both by computer and manually) it was found that, with a few simple rules for phrase preparation additional to those specified by the system designers[1], and by deleting the instruction

---

1. Work both on phrases derived from abstracts and on phrases written for the purpose show that such rules are essential.

to select by frequency of word use), it was possible consistently to generate entries which were accurate representations of subjects. The cost is sometimes one of undesirable clumsiness of expression. However such phrases should be compared not with phrases which describe scientific documents but with statements of problems as made by sociologists (cf. SEA, 6(1), 113: 'A study of the differences between culturally-advantaged and disadvantaged and between academically successful and unsuccessful tenth-grade students on the variable of universalistic/particularistic modes of resolving conflict').

The work involved in phrase writing, once the initial concept analysis has been made, does not impose a burden greater than that of preparing input for more formalised indexing systems. Thus, even though an advantage is partially lost, the system is in no way handicapped in this respect relative to other systems. Our experimental work was felt to be sufficiently promising to justify including an ASI amongst others for study in our seminar.

We were fortunate in having an opportunity, through the good offices of D.J. Foskett, and by permission of A.J. Wells of the British National Bibliography, to cooperate with Derek Austin in an experiment in the preparation of a PRECIS index to a sample of about 50 SEA documents.

The PRECIS system is in many respects similar to the ASI in that both offer an alphabetical arrangement, both are two stage systems, a complete description of the document appears at every entry point, there is indexer designation of terms to be used as entry points,

language control can be applied. Both, as systems, are still in process of development.

The starting point for the preparation of a set of PRECIS entries for a given document is, either on paper or in the indexer's head, something very akin to the title-like description from which the ASI entries are derived. The ASI entries are generated by a process of permutation and there are rules to ensure that closely related concepts or terms are not separated. But although the index entries, taken as they stand, should not give a misleading first impression, use is essentially a process, conscious or sub-conscious, of translation of the entry back into its original form. It is the natural language structure and citation order of the ASI input description (not the variable forms of the set of index entries relating to a given document) which should be compared with the discrete elements and formalised indication of relationships in the PRECIS entry - both are in their way preserved context systems. There is then the further and separate question of the extent to which the manipulation procedures by which individual entries are generated (permutation in the ASI, rotation in PRECIS) help or impede the user's comprehension of the content of an entry.

With regard to structure and citation order, natural language is flexible but may be more loose, and consistency is likely to be lower. In practice, however, an individual probably, if our experience is typical, tends to develop patterns for similar treatment of similar items, as in abstracting; if so, such patterns, set down in guidelines, may be taught. The advantage of natural language is immediacy in

communication. However, in the case of complex subjects requiring lengthy description, immediacy of communication may be better served by setting down the subject in a series of smaller units as in PRECIS. Mental effort is still required of the user, since he must supply some of the implicit links, and the crucial question is whether the formal manner in which the subject is then presented (a pattern is essential since natural language links may be lost) matches reasonably well with the user's thought patterns, or is so alien that it is preferable for him to 'struggle' with natural language.

The model employed by the PRECIS system is of a systems-analytic type, and relates to a new general classification being developed in which there will be separate vocabularies of entities and attributes.[1] The 'logic' of the system however (as seen in the rules for classing) does not consist of a set of propositions derived from the model but, as Austin[2] points out, is 'invested' in it. The rules 'are based on the recognition of certain fundamental relationships[3] between entities and their attributes, or between one entity and another'.

In the SEA context, the distinction between these types of concepts is very hard to apply. Inconclusive discussion as

---

1. Austin, D. Forthcoming introduction to PRECIS system.

2. Austin, D. op. cit.

3. The generic, attributive and possessive relationships, the interactive, defined as causal relationship, together with a fifth, the phase relationship, which is now being developed.

to the nature of 'entitativity' may be found in the sociological literature[1]. Smelser[2] points out that there are in fact various conceptual frameworks. For example, a person may be attributed many roles; at the same time a role does not refer to a complete person but, studied across persons, the concept of role is itself an entity, analytically separate from the subjects amongst whom roles, role-relationships etc. operate. In another perspective the relationship between the concepts of 'person' and 'role', as an entity, may be the subject of study. The status of any concept within a system is assigned to it by the researcher for the purposes of a given study. Accurate representation of subjects must therefore depend upon recognition of the researcher's view of his 'problem' (consistency in description should similarly be seen in these terms), rather than upon reference to one selected model.

With regard to relationships, also, the distinction between active and passive systems is not meaningful in the sociological context. 'Activity' and 'passivity' are alien notions in relation to social systems which by definition 'denote patterns of interhuman behaviour which are interdependent in such a way that any change in one pattern is attended by changes in the others'[3]. Identification of types of variables may be more helpful in categorising concepts.

There has been discussion with the Precis designers on these questions, which relate to the theoretical basis of the scheme and it is understood that a more complex model has been developed. Full details are not yet available, but for instance in experimental work it has been found possible to distinguish between (a) research in which the subjects of a research (or some characteristic of them) are the subject of research and (b) research in which the aim is not to study any characteristic of a

---

1. Borgatta, Edgar F. ed. Sociological methodology 1969. San Francisco, Jossey-Bass, 1969.
2. Smelser, N.J. op. cit.
3. Lundberg, G.A., Schrag, C.C. and Larsen, O.N. Sociology. 3rd ed. New York and London, Harper & Row, 1963.

particular set of subjects, but rather the characteristic is the subject of investigation and the selection of one set of subjects rather than another is of no significance in the design of the research.

Other problems remain for investigation. We feel, for instance, that the function of the 'qualifier', in descriptions of subjects for use in specialist fields, and in particular in social science fields, needs consideration. In experimentation with SEA and in handling BNB material, the qualifier has been used to 'establish the context in which the lead concept is considered in the document indexed'. This has been taken to indicate the discipline and/or material world context. In a specialist field, even one drawing on several disciplines, it may be better to indicate the approach employed (structural-functional, Parsonian, developmental perspective, rate of return analysis) than to indicate the field of study since boundaries at this level are so fluid. It may be, except in the case of purely descriptive writing, that the specific material world context studied would be more accurately indicated as a limiting factor on the understanding of general behaviour patterns than as 'context', which by definition implies 'something broader'.

Such questions are important ones if the essential nature of sociological thinking is not to be misrepresented. They are also important if our sociologist contributors are to be enabled to specify the subjects of the documents they handle for indexing purposes. The kind of statement required (both content and 'logic' of the individual entry- i.e. rules determining citation order) must

not conflict with the ways in which sociologists organise their data and their ideas.

The whole question of modification in description for different groups of users and for different purposes (e.g. degree of depth) is difficult but important. Ideally one would hope that a single string might be prepared in a once-for-all analysis, from which sets of entries could be generated for a range of services with different orientations. The SEA view is that this would require a team of subject specialists covering all disciplines, if possible engaged part-time in academic work and actively working in the discipline. Even with these circumstances, we feel that a once-for-all concept analysis would probably not be viable, if the <u>significance</u> of a work, as well as what it <u>is</u> in terms of the author's intentions, is to be conveyed to the user. It is more likely that a network of specialist services, though possibly using a system technically compatible, would (despite duplication of effort) more effectively meet the needs of specialists. Such services, with contributors in immediate contact with developments in their disciplines, would be better able to achieve the necessary identification with researchers' conceptualisation processes for accuracy in representations of subjects.

With regard to the mechanics of the system the use of a process of rotation (as opposed to permutation in the ASI) ensures that the citation order is held constant in all the entries generated from an input description. Less mental gymnastics therefore are required of the user in reading the entry. To help him still further, relationships between elements in the description of a complex subject are often expressed in prepositional phrases to which

attention is drawn by change of type face, rather than by any formal means (e.g. punctuation symbols), although simple possessive or attributive relationships are indicated positionally, and the formal three-part structure of an entry carries additional relational information. The main effort required of the user, therefore, in formulating a cohesive statement of a subject, is to start at the end of the phrase and read backwards, making a small intellectual leap from each element to the preceding one.

Austin, Coates and others consider chaining as an alternative procedure and conclude that there is undue noise for users entering the index at or near the start of the chain[1]. This may not be too inconvenient if users are making a search of the literature as a means towards rather than as a consequence of the formulation of their requirements. Nevertheless if it were decided to couple such an index with an arrangement of abstracts other than classification by subject, the tracing of individual abstracts dispersed throughout the file would be tedious. Additionally, if space etc. permits, the complete representation of a subject at every entry point is clearly preferable. The SLIC technique is attractive but, as compared with PRECIS, does not readily allow the indication of relationships.

---

1. Austin, D. and Butcher, P. op. cit.

In terms of use of space and other economic considerations, PRECIS may be considered a luxury system. Given, however, that the economics are acceptable, and given that the theoretical model underlying the structure of the entries does not conflict with the intellectual approach to the literature of the user, the appropriateness of the mechanics of the system is felt to be entirely a matter of user preference for one kind of visual stimulus (e.g. linguistic cues/formalised pattern in the two systems discussed so far) rather than another. (Even so there are a number of relevant factors, e.g. academic background and training, work habits, verbal/visuo-spatial ability are some of the user variables, features of typography, layout etc. are amongst the system variables.) At this stage, the possible economic constraints are impossible to predict, but it was clear that the experimental work was of considerable interest and that an assessment of user reaction would be valuable.

As an alternative, a system which produces an index similar in many respects to a PRECIS index, but rather more economical of space, is that developed for the British Technology Index (BTI) by E.J. Coates. Like the PRECIS system, it offers an alphabetical arrangement, is precoordinated; contrasting like PRECIS with an ASI, relationships are indicated and, as Coates stresses[1],

---

1. Coates, E.J. op. cit.

'intellectual effort is applied at the input [stage]' to achieve formal statements of subjects in accord with an algorithm broadly similar to that of PRECIS.

Unlike PRECIS, which is intended to be coupled with a classified arrangement of document descriptions, it is designed as a one stage system. However, if used in the context of an abstracting service, it would be expected that there would be a separation of 'descriptive detail from the subject heading structure[1]', to form a two stage system.

Another difference between the two systems is that in the BTI system the subject description appears only once in the index, under its lead concept but not under other key concepts. Users entering the index under other concepts in the string are referred to the main entry by means of a system of inverted cross-references. As Austin[2] points out, the effect of this practice is that in depth indexing 'the number of subject elements from which only references are made always exceeds the number of salient entries, so that some pages ... seem to lose impact by consisting largely of references'. However, again, in the context of an abstracting service, document references would be expected to accompany the first half of the inversion reference, eliminating the need to cross-refer between headings.

Austin[3] also notes that with a chain procedure there is a 'tendency to handle concepts in their substantive form'. This may not be too great a disadvantage where this tendency appears to exist

---

1. Coates, E.J. op. cit.
2. Austin, D. Forthcoming introduction to PRECIS system.
3. Austin, D. op. cit.

in the literature, although it may (cf. Slum dwellers. Children) inhibit immediate comprehension. But it does lead to clumsiness (e.g. East Africans: Universities), and it could lead to information loss (e.g. 'Maternal deprivation' would not be sought under 'Mother ...').

There are further points of contrast. The method involves the use of inversion in citing compound terms; this cannot be avoided. Where compounds often consist of two or more substantives this may be confusing (e.g. Motivation, achievement); where the qualifier is an adjective (e.g. maternal expectations) it is, at the least, irritating. With regard to technique for indicating relationships between concepts in a string, whereas the PRECIS system relies upon citation order backed up by the use of prepositional phrases, the BTI system employs citation order and punctuational symbols. The latter requires a greater effort on the part of the user, at least initially.

Thus, whilst in their 'formal' approach the two systems have much in common, the BTI system has important differences in terms of mechanics which require to be examined, as in the case of PRECIS, from SEA's viewpoints of intellectual acceptability and acceptability to users in the first instance, and ultimately then with regard to practical feasibility.

Our work has not advanced to the point at which it would have been appropriate to present a BTI-style index to the subject experts at our seminar. A sample index has been produced independently by E.J. Coates. However, it is difficult on this basis to examine the potential of the system in relation to indexing

the literature of the sociology of education, for the reason that, because of problems of terminology and concept analysis, the potential of the system does not emerge clearly.

Considering the system in theoretical terms, there are two main problems to be noted. The first relates to BTI's practice with regard to exhaustivity and specificity. Its 'exhaustivity is a function of the choice of the whole paper as the unit to be summarised. Its specificity is the measure of precision with which the index heading corresponds to the summarised idea-content of the whole paper'[1].

From SEA's point of view, exhaustivity can sometimes only be achieved (e.g. in the case of some books) by the use of a smaller unit than the whole document. This is recognised by Coates who uses more than one string in several cases in his sample index. However, summarisation at any level may be difficult to achieve, and to avoid information loss it may be necessary to enumerate all the variables, and to do so in the same string. For example, a subject such as 'teacher participation in decision-making (in the community) viewed in relation to teacher role expectations' is not helpfully summarised as 'social interaction of teachers'. Similarly it is not adequate to select one variable only from several selected for study by a researcher (e.g. 'association of attainment and sociometric status with reported delinquent behaviour' is not, as in Coates' sample index, appropriately summarised as 'achievement' of 'withdrawn' or 'aggressive' students).

---

1. Coates, E.J. op. cit.

The second problem is that of the theoretical model to which the BTI algorithm[1] relates, and is almost identical to the problem described with regard to the PRECIS system. In the first place, the use of a causal model is inappropriate to the sociological literature. Secondly, emphasis on the 'concrete thing' tends to lead to distortion in statement of subject. It is unnecessary to repeat our arguments with regard to this approach.

Coates[2] indicates various ways in which the system may be modified within its general framework. For instance, it would be possible to employ a different facet order. Again one might refer at each entry point to the abstract rather than cross-referencing. Nevertheless this would not solve the fundamental intellectual problems. As it stands, it would seem that the system enforces a distortion of the sociological perspective, limiting it to a view of education as a situation in which 'Educands are the recipients of educative action carried on by Educators'.

---

1. Coates, E.J. and Nicholson, I. 'British Technology Index - a study of the application of computer processing to index production', in: Cox, N.S.M. and Grose, M.W. eds. Organization and handling of bibliographic records by computer. Newcastle upon Tyne, Oriel Press, 1967.

2. Coates, E.J. op. cit.

As in the case of the PRECIS system, the algorithm is 'invested' in the system. There seems therefore no reason in principle why it should not be developed to take account of a more complex conceptual model. Features of the system such as the use of punctuation symbols as relational operators, which may confuse inexperienced index users, might then receive less prominence, or alternatively natural language phrases might be used as a matter of course; there are several precedents in Coates' sample index (e.g. 'correlation with').

Technical features inherent in the system (e.g. deriving from chain indexing techniques) would remain for assessment in terms of user reaction. Such questions would have to be weighed against economic etc. questions. The general effect, however, would be somewhat to blur the distinction between the present BTI system and the PRECIS system now being developed, perhaps to a point at which the effort would not be justified. There has as yet, however, been no discussion with Mr. Coates, so that more detailed comment would be premature.

It was considered that a precoordinate index would be more appropriate for SEA users than a postcoordinate index on account of the complex subjects of many documents. Such an index is far from ideal for use in an index appearing within a journal, though possibly helpful to individual users who maintain a personal (e.g. punched card) file. However, in view of the adoption of an indexing system of the latter type within the US ERIC (Educational Resources Information Center) system, some of whose products are known and used by respondents to one or our questionnaires (see p.3.15), it was felt that the method should be illustrated and discussed by our seminar group.

It proved impossible to use the Thesaurus of ERIC descriptors[1] for this purpose since a considerable proportion of the concepts represented in our sample of documents did not figure in it. Foskett[2] faults it on more general grounds: 'loose terminology, inconsistent application of subject headings, varying treatment of comparable headings in sub-dividing (e.g. Physics and Chemistry), lack of necessary and even commonplace headings and references'.

It was decided, since some users were familiar with ERIC products, to follow the ERIC practice of not providing cross-references (though there would seem to be no reason in principle why this should not be done) so that the last of Foskett's points caused us no problem. Lack of necessary headings was a considerable problem; only about one third of the required concepts were indexed in the thesaurus in the form required, and even when near equivalents and 'use' references were included, 40% of our concepts were still missing. Many of these are, as Foskett suggests, commonplace. It was to be expected that some sociological concepts would not be included, but it was found that only 60% of the required educational terms were present. A strong American bias in terminology is also to be noted, and many of the terms describing the administrative structure of education in countries other than the United States

---

1. Educational Resources Information Center op. cit.

2. Foskett, D.J. and Humby, M.J. 'Documentation of education in the United Kingdom with an account of other semi-mechanised and mechanised systems of interest,' in: Council of Europe European documentation and information system for education, Vol. II National reports. Strasbourg, Council of Europe Documentation Centre for Documentation in Europe, 1969.

are lacking.

As an alternative basis we considered the thesaurus of Barhydt and Schmidt[1]. Foskett[2] comments of this thesaurus: 'Another thesaurus has been produced by Case Western Reserve University. This has been constructed by the team originally engaged by the U.S. Office of Education to prepare its own thesaurus; but the two groups parted company at some stage, and consequently there are now two American thesauruses. The CWRU effort is much superior , has a clearly defined structure, and avoids most of the faults mentioned ... [with regard to the Thesaurus of ERIC descriptors]. We would not recommend that this be used as it stands, however, mainly on the grounds that it has been prepared from examination of American literature, and lacks many terms and aspects found elsewhere'. We found that a larger proportion of our sociological concepts were listed but in terms of overall inclusion/exclusion rate the pattern was similar to that of the ERIC thesaurus. It was therefore decided to compile our own list of subject headings, and this was used both for an ERIC-style index and, with the inclusion of a structure of cross-references, for the other types of index also. As far as possible the number of entries per document was confined to a maximum of around five as in the ERIC system, though this is not invariable.

---

1. Barhydt, Gordon C. and Schmidt, Charles T. Information retrieval thesaurus of education terms. Cleveland, Press of Case Western Reserve University, 1968.

2. Foskett, D.J. and Humby, M.J. op. cit.

From questionnaire information, it was evident that there is an overwhelming preference for an alphabetical rather than a classified index. We foresaw too that the complex problems with which many SEA documents deal were likely to produce classification symbols of a greater length than most users were likely to tolerate. There is the additional disadvantage with a classified index that it is a three-stage system (index of concepts → index of subjects → original documents in library use or abstracts in a service such as SEA), as compared with the (two-stage) alphabetical index. The advantages of such an index, however, in a field in which searches seem to proceed often by exploration rather than retrieval of items on specific topics, are widely recognised. Also, although some services used by sociologists of education employ the techniques of broad grouping by topic or study area, none could be said to be based on a detailed formal scheme of classification, and users were therefore expressing an opinion without experience of using a classified system. Experimentation therefore seemed desirable.

With regard to possible types of classification, the inadequacy of hierarchical schemes for the documentation of modern specialist literature, particularly in developing interdisciplinary fields, is now generally accepted. Foskett[1] levels the following criticisms at such schemes: 'lack of precise detail; cross-classification, which allows "synonyms", or the provision of more than one place for the same topic without also providing rules for making the choice; inconsistencies in the sub-dividing of several

---

1. Foskett, D.J. op. cit.

topics by the same, or similar, sub-divisions; inadequate machinery for revision, which means a lack of places for new subjects until such time as a new edition of the scheme is published'.

Modern techniques of classification tend instead to employ methods of facet analysis. This is generally seen to be more flexible and to allow of a detailed 'synthetic' representation of the subjects of individual documents, whilst at the same time offering a principle for consistent collocation of subjects by means of a prescribed facet order[1].

The content of an appropriate scheme for the sociology of education and general questions of intellectual organisation were considered separately by the seminar group and are held over for discussion in the next (second) section. For the purposes of the present discussion, it is enough to say that we had been experimenting, at D.J. Foskett's suggestion, with the addition of sociological facets to his faceted scheme for education. A major problem was that of deciding upon an acceptable preferred order and this was one of the reasons for which we were attracted by Foskett's suggestion that rotation be used to afford entry in

---

1. For a detailed account of developments in classification, see Foskett, D.J. Classification for a general index language: a review of recent research by the Classification Research Group. London, Library Association, 1970.

a classified index under each element of the classification of a document[1].

Foskett had in mind, however, the library situation; in the context of an abstracting service some of the technical aspects of such a system have to be rethought.

Foskett's intention was that a bibliographical citation should be given at every entry point and, envisaged in the library context, this would clearly be effective. In an abstracting service, however, bibliographical details are accompanied by an abstract, and for economic reasons it is impossible to give a full abstract at every entry point in a rotated index. The most satisfactory solution seems to be a verbal 'translation'[2] of the classification of the document wherever it appears in the rotated file, together with a reference (e.g. serial number) to a separate file of abstracts.

As compared with classification for library purposes, a complete representation of the subject of a number of SEA's documents rarely falls below six concepts. However, a restriction, perhaps to a maximum of six, even at the risk of incompleteness or possibly distortion, would seem to be essential from the point of view of usability for the majority.

---

1. Foskett considers also chain indexing but concludes that it is just as economical to make a complete classified entry at each entry point.

2. I.e. a statement, in telegraphic form, of the concepts represented in the classification of a given document, which could be automatically generated by computer.

This creates, even so, another problem in following Foskett's intentions. The notation preferred by Foskett consists of pronounceable three letter groups, with number groups for countries. Illustrating his system, Foskett uses a KWIC-type presentation of classification symbols; with as many as six elements each of three characters (needing space for five groups of three characters on either side of the central position) this is uneconomical of space. As an alternative one may use transposition (e.g. Bab Deb Hib - Deb Hib (Bab) etc.) rather than an emphasis shifting technique, e.g.

Bit Bim
Buf Bit
Buf Bux

It has been suggested that it would be possible instead to retain the string in its original order and use heavy type to indicate the term being indexed but, since this term would not be aligned with those above and below, users might find this confusing.

We encountered other notational problems. Such a syllabic notation has a limited hospitality[1] and, from the point of view of

---

1. Stuart-Jones, E.A.L. 'Education classification - some basic problems and the London Education scheme.' Education Libraries Bulletin, 1969, 36, 2-17.

adding facets to the LEC scheme[1], since LEC uses B-T, this leaves little scope for extension. Additionally it is rarely the case that the structure of the notation may be used to reflect the intellectual structure of the scheme. These practical considerations seem to override the undoubted mnemonic quality of such a notation.

Two symbols of relation are recommended in Foskett's introduction to the scheme, the colon indicating the 'influence phase', and the diagonal stroke for other relationships. In practice, in the London Institute of Education library, 5 phase relations are now catered for[2]: :1, general; :2, bias; :3, comparison and difference; :4, influence; :5, tool. In a type of system which, in terms of mechanics of use, already makes greater demands upon users than they are accustomed to, this adds yet further complexity. Not all these relations (e.g. :4 and :5) would occur in SEA document subjects, but others (e.g. interaction) would be required if it were considered necessary to specify nature of relationships. For seminar purposes it was decided that this might make the index appear unduly formidable.

Despite certain limitations imposed by this type of system per se, and the need to modify, for SEA's purposes, upon the specific system recommended by D.J. Foskett, the reactions of sociologist colleagues to experimentation in the ways outlined were sufficiently encouraging to justify the inclusion of a system which might be described as modelled on that of Foskett.

---

1. As an aside it may be mentioned that in preparing sociological facets, although concepts from about 800 documents were used in establishing the facets, in the main only those from a sample of 100 documents were included and notated for the purpose of illustration at the seminar. By the time the use of letters pronounced alike had been avoided, and comical and obscene associations eliminated, it was found that the available notation barely sufficed in some facets even for this limited number of concepts.

2. Stuart-Jones, E.A.L. op. cit.

Nevertheless, we had two major reservations in respect of problems which would require resolution before we would be prepared to adopt such a system. In the first place, although we were able, tentatively, to establish a number of sociological facets, it was impossible to find any principles for ordering items within facets which would be generally acceptable. Rather than impose an artificial or, to our users, intellectually incongruent, (however logical) structure, we preferred to accept the fact and to use alphabetical order within facets. This, however, is to forego a major strength of the system. No specificity is lost, providing the alphabetical index is sufficiently specific, but it does mean that to widen the search one may have either to look in several places in the alphabetical sequence within the facet or to start again from the alphabetical index, since related material is not grouped together.

Secondly, whilst obviously an order of facets must be prescribed since print and paper requires a linear sequence of items, it is by no means necessarily helpful to use the same preferred order in ordering the elements within the classification of an individual item. There are cases in which one would most helpfully state as 'leading' element the independent variable (the one which is being manipulated as changes in other variables are studied), although other variables may occur in prior facets[1].

---

1. We found it more helpful to use an abstract to concrete facet order rather than the general to specific order of LEC, and to maintain this order in individual document descriptions where LEC reverses it. On balance this was appropriate if a decision has to be made on this basis, but we question the need for such a decision.

This offers a principle which would in our view both ensure consistency and be helpful and meaningful to specialists. For example, change (a social process) may affect attitudes (of a social group, another facet); equally these attitudes may modify the process of change. In this kind of feedback relationship there is no inherent order of priority of concepts and the focus of the study (at which presumably the document is best classified) depends entirely upon which phase of such an interaction a researcher has selected for investigation as compared with another researcher in a parallel situation. The rotated index ensures complete access but, in a situation in which bibliographical details do not accompany the entry in such an index, it would seem that other principles for citation order of entries, at least in the case of complex subjects, are required, to avoid 'false drops'.

(b) Seminar study of indexes

A random sample[1] of c100 SEA abstracts was processed to produce indexes of four different types (material being treated in the ways just outlined): ERIC-style, rotated faceted, articulated subject and PRECIS indexes.

Initial concept analyses were prepared, an education librarian and a sociologist working independently, comparing notes and agreeing on a final version. A set of descriptors and cross-references was agreed and was adopted as far as possible in all indexes, subject

---

1. The sample consisted of one in four abstracts from SEA 5(1-3). A few documents were especially introduced to give a measure of clustering which such a small sample would not produce.

to special conditions imposed by the individual systems.

Entries for all the indexes, with the exception of the PRECIS index, were prepared manually and in-house from the same concept analyses. The PRECIS index was produced by a team led by Derek Austin at the British National Bibliography, and the BNB printing department, by arrangement with Mr. A.J. Wells, were responsible for printing the four indexes, together with the abstracts to which they relate.

Great care was taken in the printing of the indexes to minimise differences in format typography, layout, etc. as far as possible, so that attention could focus without intervening factors upon the mechanics of the indexing systems.

Abstracts were classified but access from all indexes was by serial number. No reference was made to original documents and all judgments as to accuracy of representation of documents were made on the basis of information in the abstract only.

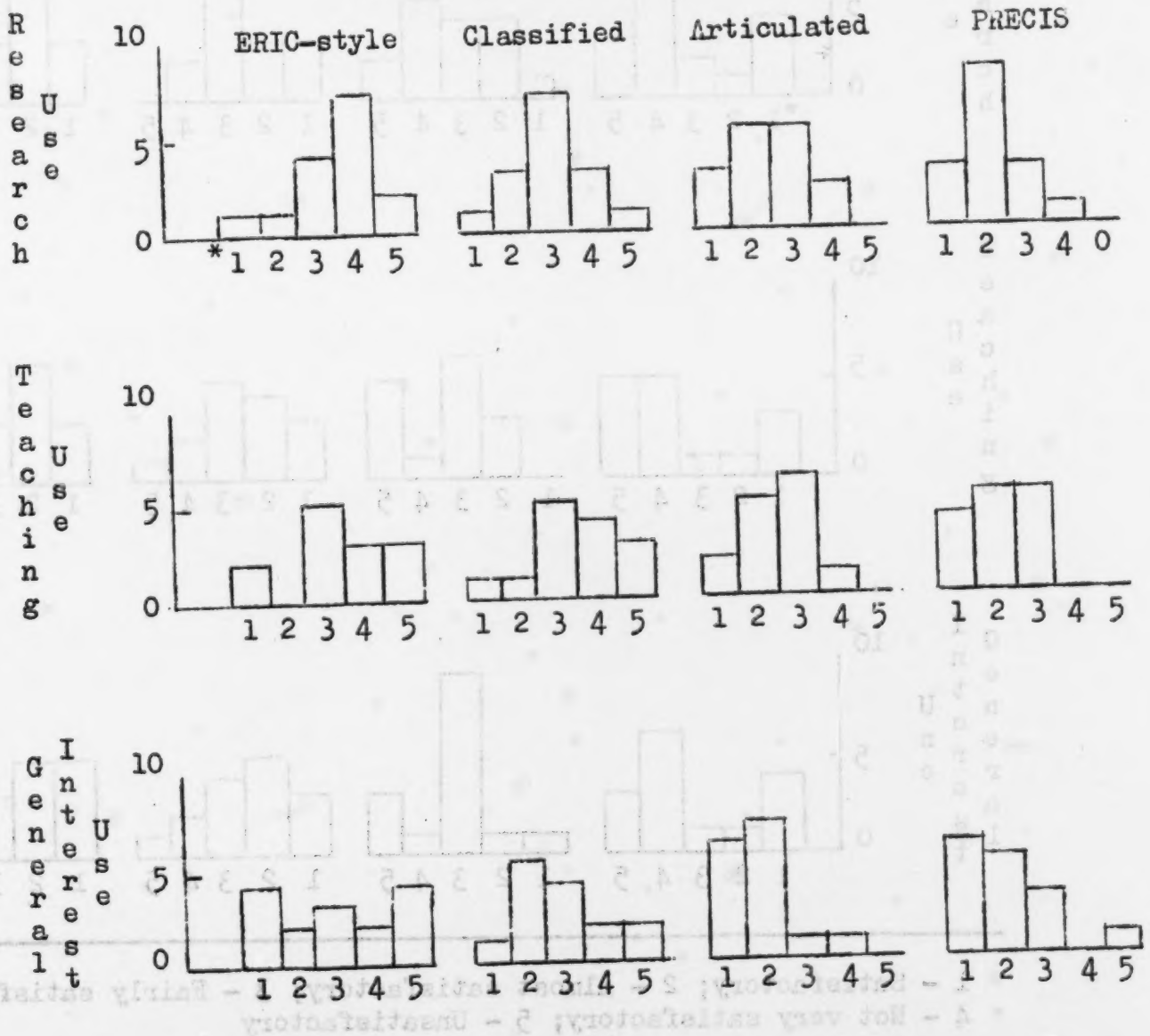
It was felt that the sample of documents was too small and time too limited to make the simulation of actual searches viable. Our interest too lay not in index performance but in informed user preference. To this end, general technical features of the different indexes were described to the group and methods of use illustrated, and then, after discussion, members' attention was focussed upon the treatment of individual items, comparing across indexes. (Working papers are available on request.)

The group was then asked (by means of questionnaires) to give an assessment of the extent to which it was felt the mechanics of the different systems allowed documents to be recorded in ways which are appropriate to the material and helpful to the sociologist of education.

Effectiveness for different purposes in use (research,

teaching, general interest (i.e. browsing) use) was first considered. From the point of view of usefulness to the sociologist of education (i.e. appropriateness in relation to problems arising in the sociological study of education), the ASI and the PRECIS index were felt to be most satisfactory for all the kinds of purposes specified, although a higher proportion deemed the ASI only fairly satisfactory. The classified and ERIC-style indexes were rated rather lower, but the classified index was seen to be at least fairly satisfactory by a majority, except for teaching purposes. The single concept index would be moderately acceptable for teaching purposes; there are mixed views as to its usefulness for general interest use; it is not strongly favoured for research purposes.

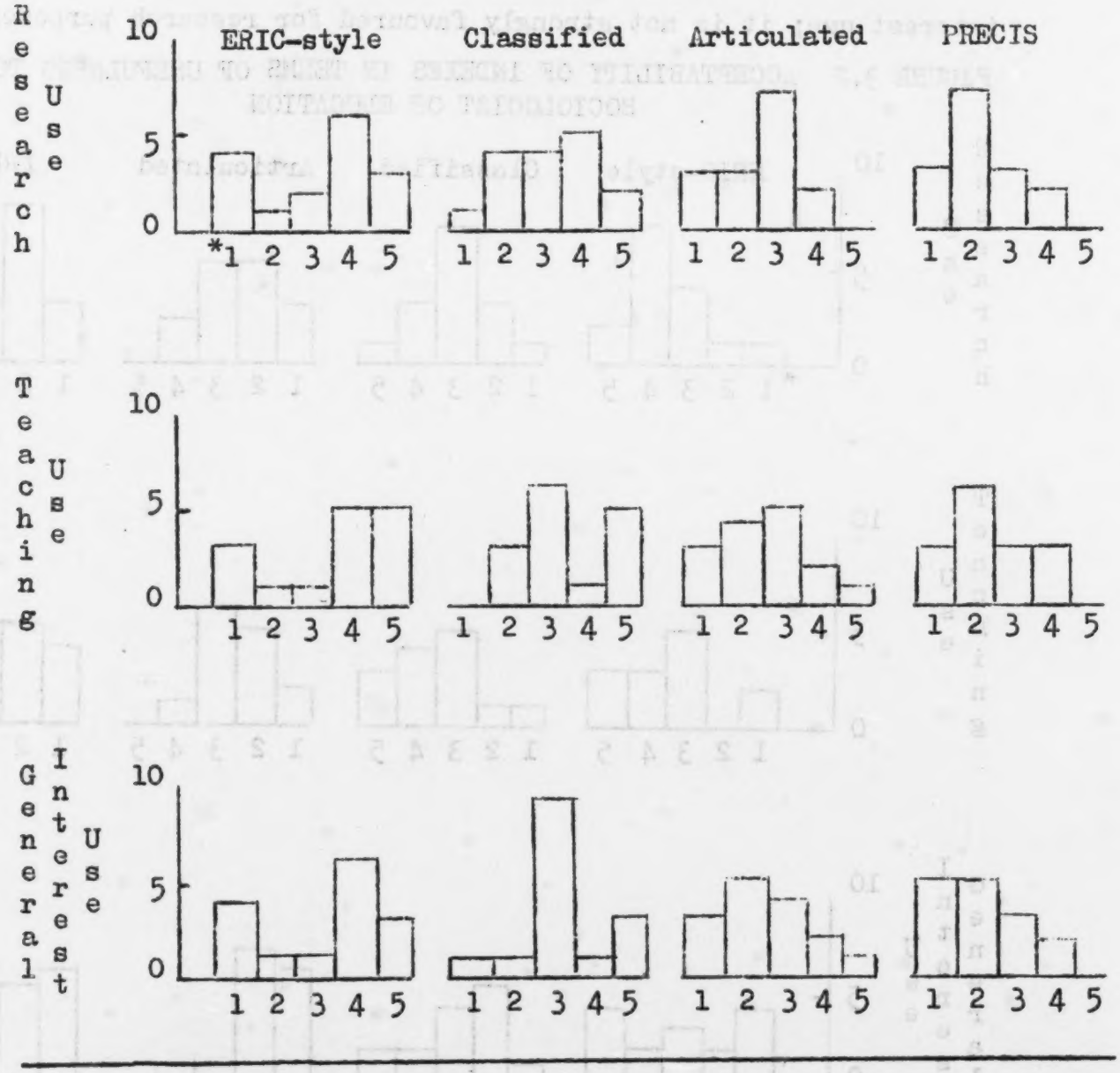
FIGURE 3.2 ACCEPTABILITY OF INDEXES IN TERMS OF USEFULNESS TO THE SOCIOLOGIST OF EDUCATION



* 1 - Satisfactory; 2 - Almost satisfactory; 3 - Fairly satisfactory; 4 - Not very satisfactory; 5 - Unsatisfactory

With regard to usability, the general rank order of preference is the same. There are again slightly more favourable ratings for the PRECIS index as compared with the ASI. The classified index received a rather high proportion of unfavourable responses, though a few thought quite highly of it except for general interest use. The single concept index received a somewhat mixed response, a few people thinking very highly of it, though the majority found it at best 'not very satisfactory'.

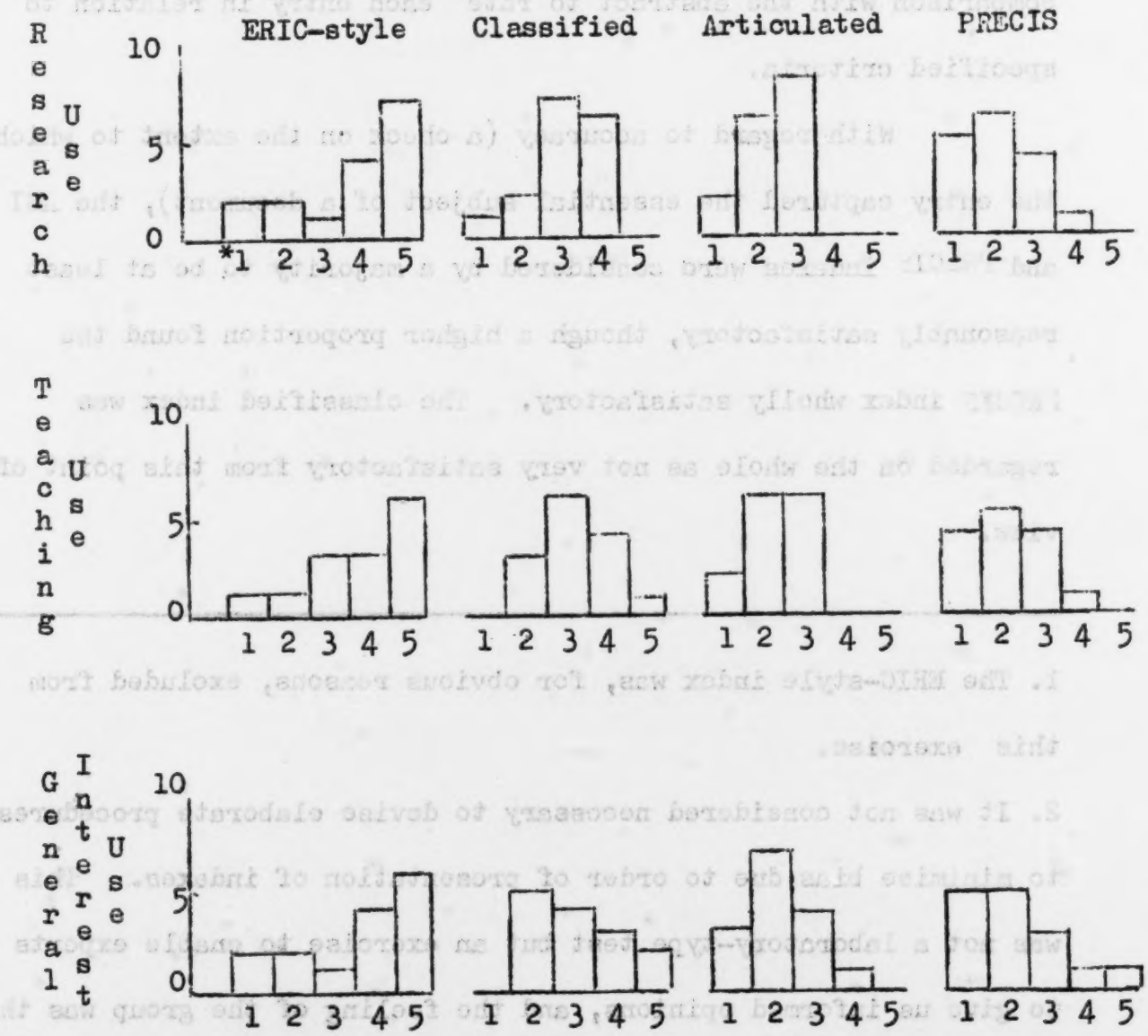
FIGURE 3.3 ACCEPTABILITY OF INDEXES IN TERMS OF USABILITY



* 1 - Satisfactory; 2 - Almost satisfactory; 3 - Fairly satisfactory; 4 - Not very satisfactory; 5 - Unsatisfactory

Effectiveness for prediction of relevance of documents was also considered. The same rank order emerged. Again the ASI was found slightly less satisfactory than the PRECIS index, and the classified index less so than either. The single concept index, used by finding common references amongst references under a series of desired headings, is clearly not helpful from this point of view.

FIGURE 3.4. ACCEPTABILITY OF INDEXES IN TERMS OF EFFECTIVENESS FOR PREDICTION OF RELEVANCE OF DOCUMENTS



* 1 - Satisfactory; 2 - Almost satisfactory; 3 - Fairly satisfactory; 4 - Not very satisfactory; 5 - Unsatisfactory

The question of prediction of relevance was explored further since, whatever strategies are used to search an index, it seems reasonable to assume that users, on the basis of each entry they examine, make a judgment as to whether to follow the reference up, even if only in a negative way by eliminating totally non-relevant items. Members were given corresponding entries from the classified, ASI and PRECIS indexes[1] for selected items, asked to predict the contents of each item on the basis of each entry, and on comparison of each item on the basis of each entry, and on comparison with the abstract to rate[2] each entry in relation to specified criteria.

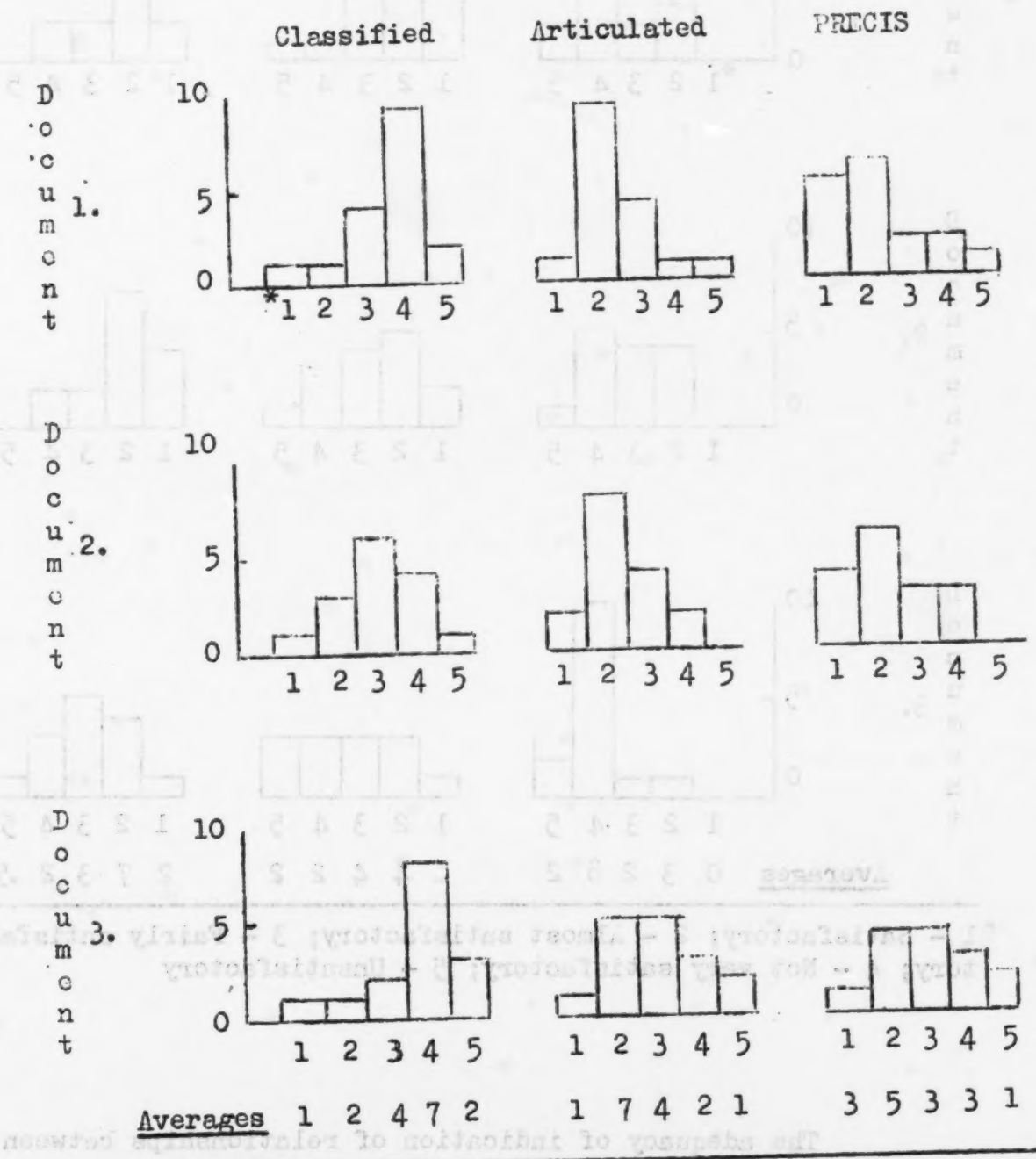
With regard to accuracy (a check on the extent to which the entry captured the essential subject of a document), the ASI and PRECIS indexes were considered by a majority to be at least reasonably satisfactory, though a higher proportion found the PRECIS index wholly satisfactory. The classified index was regarded on the whole as not very satisfactory from this point of view.

---

1. The ERIC-style index was, for obvious reasons, excluded from this exercise.

2. It was not considered necessary to devise elaborate procedures to minimise bias due to order of presentation of indexes. This was not a laboratory-type test but an exercise to enable experts to give us informed opinions, and the feeling of the group was that they could gauge their reactions reasonably accurately.

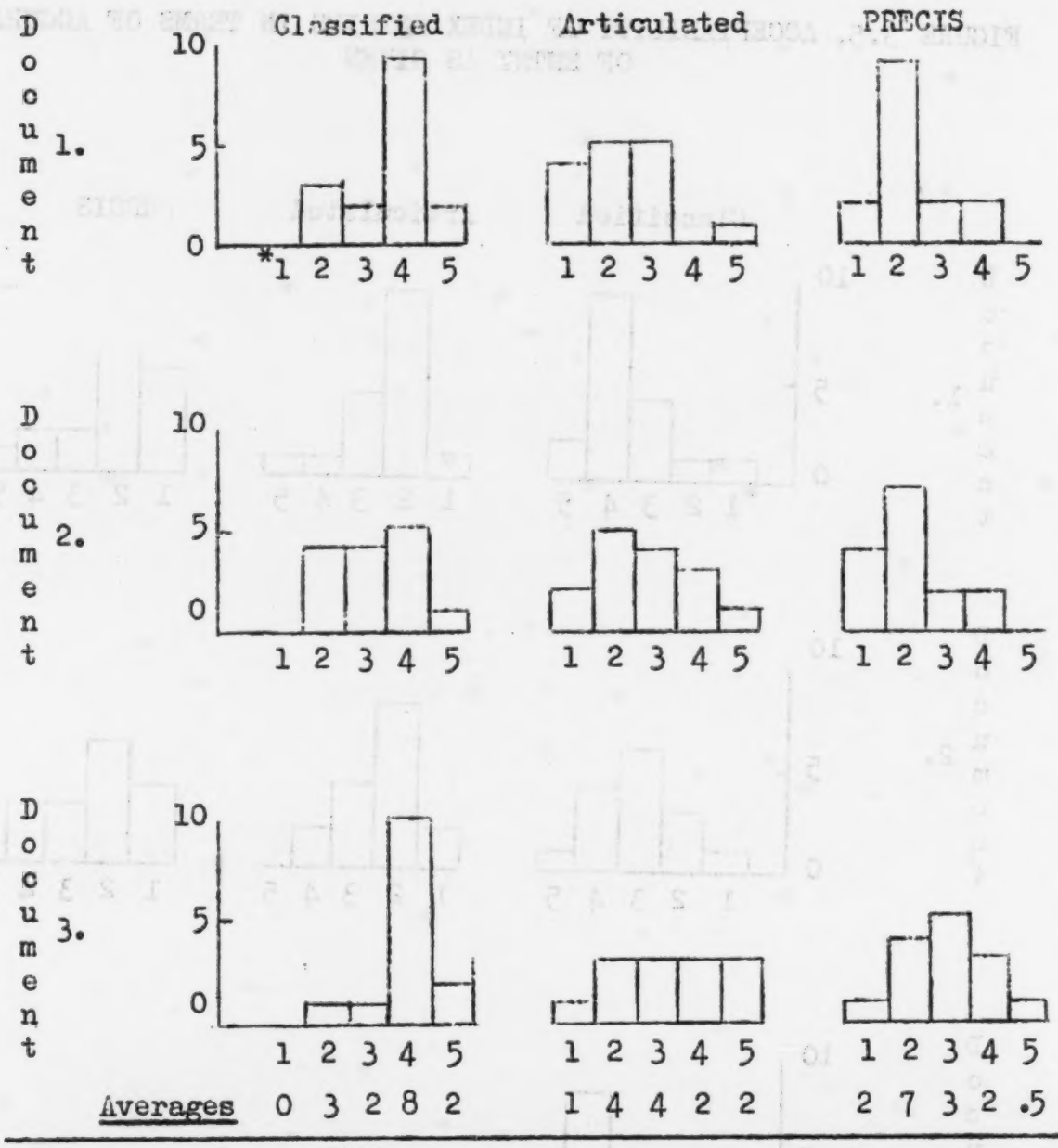
FIGURE 3.5. ACCEPTABILITY OF INDEX ENTRIES IN TERMS OF ACCURACY OF ENTRY AS GIVEN



*1 - Satisfactory; 2 - Almost satisfactory; 3 - Fairly satisfactory; 4 - Not very satisfactory; 5 - Unsatisfactory

Members were asked also to consider whether all important concepts were included. We had in mind that the practical limitation to six concepts imposed upon the classified index might be seen as a serious limitation upon the value of this type of index. This index was indeed rated much lower than the other two in this respect.

FIGURE 3.6. ACCEPTABILITY OF INDEX ENTRIES IN TERMS OF INCLUSION OF IMPORTANT CONCEPTS

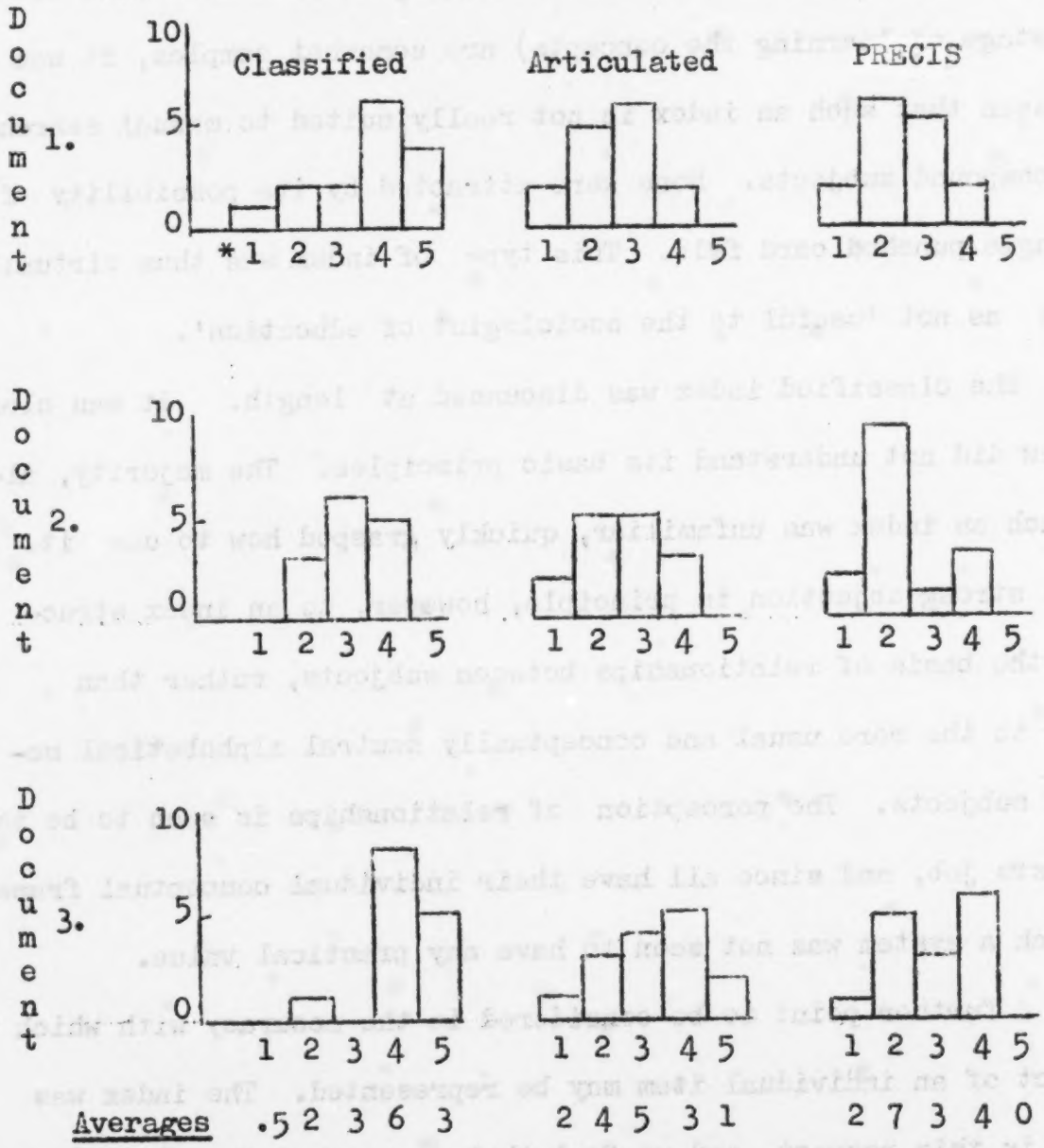


*1 - Satisfactory; 2 - Almost satisfactory; 3 - Fairly satisfactory; 4 - Not very satisfactory; 5 - Unsatisfactory

The adequacy of indication of relationships between concepts was next considered. Relationships were indicated in the classified index in a very rudimentary way, merely in fact using diagonals as dividers between the elements of the description. Natural language achieves this purpose in the ASI, a combination of citation order and natural language are used in the PRECIS iniex. The ASI and PRECIS are both seen by the majority to be at

least fairly satisfactory, though the PRECIS index was seen by a higher proportion to be more nearly completely satisfactory in this respect. The classified index was on the whole 'not very satisfactory'.

FIGURE 3.7. ACCEPTABILITY OF INDEX ENTRIES IN TERMS OF ADEQUACY OF INDICATION OF RELATIONSHIPS BETWEEN CONCEPTS



* 1 - Satisfactory; 2 - Almost satisfactory; 3 - Fairly satisfactory; 4 - Not very satisfactory; 5 - Unsatisfactory

Time did not allow of a similar exercise on the selection of descriptors and structure of cross-references, though such an exercise had been planned.

A rather stereotyped pattern of response emerges. Discussion threw some light on this. Most members clearly want to identify possibly relevant documents in the simplest possible way. This being so, a single concept index, making reference to abstracts, was felt to be attractive. But since in the nature of work in the sociology of education, the problems studied (except at the most elementary stage of learning the concepts) are somewhat complex, it was quickly seen that such an index is not really suited to manual searching for compound subjects. None were attracted by its possibility for organising a punched card file. This type of index was thus virtually ruled out as not 'useful to the sociologist of education'.

The classified index was discussed at length. It was clear that a few did not understand its basic principles. The majority, although such an index was unfamiliar, quickly grasped how to use it. There was strong objection in principle, however, to an index structured on the basis of relationships between subjects, rather than according to the more usual and conceptually neutral alphabetical sequence of subjects. The perception of relationships is seen to be the sociologist's job, and since all have their individual conceptual frameworks, such a system was not seen to have any practical value.

A further point to be considered is the accuracy with which the subject of an individual item may be represented. The index was rated low in this respect, and we feel that we reached the limits of the complexity tolerable in the SEA context. As one member of the group commented: 'letters galore'.[1]

---

1. Members felt unable to comment without more experience on the LEC-type notation. No strong initial reactions were expressed either for or against it.

Regretfully, it must be admitted that such an index is not practicable for SEA's purposes.

As precoordinate indexes, ASI, PRECIS and BTI indexes handle compound subjects in a more appropriate way than can a post-coordinate index. As alphabetical indexes they impose no conceptual structure upon the collection of documents they represent, though related headings are suggested by means of cross-references. In the ASI and PRECIS indexes studied by the group, the entries were felt to be somewhat lengthy (some would use the index in fact instead of abstracts). It was understood, however, that the alternative would often be an incomplete description or one so general as to carry little information content. No strong preference was expressed for either natural language structure or more formalised structure; neither caused any marked degree of inconvenience.

It may be argued that since, despite objections raised on intellectual grounds, the PRECIS index was nevertheless rated as high and in some respects slightly higher than the ASI, it would be desirable, if only for the sake of compatibility with a system to be used nationally, to opt without further question for the PRECIS system, with or without modifications along the lines suggested. This would be a powerful argument also for the PRECIS as against the BTI system, even assuming the latter to be acceptable to users, although it is conceivable that economic factors might override an option for the PRECIS system.

Although the seminar ratings indicate a rank order amongst indexes, they are not absolute measures of excellence on any criterion. For reasons of time it was not possible to discuss any system in great detail and the group was not asked to consider the specific algorithms used in the systems studied nor to conduct sample searches in a way which would prompt discussion of reasons for 'false drops'. Attention

was focussed rather upon general system mechanics. Also members were asked to speak for the best interests of the discipline but a variety of factors may have coloured their views. However, the exercises, it will be remembered, were not intended to provide any formal evaluation of indexing systems, but to elicit the range of views to be considered by the Editor in making decisions about SEA.

It is perhaps of significance that in commenting on suitability of indexes for institutional v. personal use, the ASI was rated higher for the latter, although PRECIS was considered superior for the former purpose. Perhaps the preference for the ASI for personal use is purely subjective. The ASI is somewhat similar to the index used in SA, which most members know even if they do not use, whereas none of the indexes they cite as known resemble PRECIS, perhaps a novelty factor is operating against PRECIS when it comes to a matter of personal choice. Possibly personal use of a service is better matched in some way by less formal representations of subjects. From the point of view of preparation of input, specialists would find ASI-type phrases relatively simpler to write. PRECIS strings would certainly have to be prepared in-house from ASI-type phrases.

There appears to be considerable flexibility within the PRECIS system (it is impossible to speak at the present time for BTI) but details of current developments are not yet available. It is possible also that Dr. Lynch and his colleagues may at some stage envisage further development of their ASI system which may eliminate some of SEA's particular problems[1]. Absence of relation

---

1. Failing this a KWOC would be by no means inappropriate.

to any conceptual framework might be seen to be a considerable strength from SEA's point of view, providing some more rigorous control of citation order in entries can be achieved. It is clear that further study of the application of the system to our literature would be desirable. At the same time, it is very much to be hoped that the Lynch team will find it possible to devote time to a study of the development of their system for use in social science fields, in cooperation with bodies such as SEA.

Citation indexing has considerable attractions[1] in a situation where it is considered desirable that no subjective element should intrude. It presents organisational problems, however, for SEA in that it would necessitate all material being channelled through the central office, so that the necessary references, footnotes etc. could be extracted, instead of being sent direct to abstractors as at present, thus saving time and postage. Our citation study (see p.1.47) shows too that the number of items lost by scatter must necessarily, for purely practical reasons, be fairly considerable, and it cannot be assumed that abstracts of such items will be traced in other services. A citation service is probably only feasible (it is undoubtedly desirable, even given known shortcomings in citation practice) on a broad multidiscipline basis.

Seminar discussion made it clear that SEA is seen to have a considerable responsibility beyond that of purveyor of information.

---

1. 84% of Infross respondents expect that such indexes would be considerably or moderately useful. As they have probably never used one, however, it is impossible to say how far a novelty factor is operating.

Many of those working in the field do not have an extensive sociological background. The field is as yet conceptually and methodologically fluid. Reference to the literature is not merely a means to an end; working over the literature is a part of the intellectual process to a much greater extent than in longer established fields. In so far as SEA enables a user to short-circuit reference to the literature it is participating in the intellectual process and possibly influencing its course. It is therefore important that SEA should not, in dealing with the literature, go beyond areas of general agreement amongst sociologists, either with regard to terminology, in statement of subjects or in assumptions about search strategy.

There is undoubtedly a place for a service catering for retrieval in the accepted sense of matching formal statements of information requirements to formal statements of document subjects. For this kind of purpose an index such as PRECIS, given the above proviso and given further work in developing our SEA thesaurus of terms, seems to be suited, and its performance may be evaluated in terms of recall/precision, speed of search etc. There are equally situations in which the specification of requirements in advance is (a) not possible and (b) not desirable. It may be that the same type of index could effectively be used in a more open-ended way also. This is a point which requires further exploration. But it is considered essential, in view of the importance from a discipline standpoint of the latter approach to the literature, that future work should additionally investigate other forms of organisation and types of service (evaluation is a much greater problem here and has yet to be considered in detail).

(2) Classification

The act of specifying the subjects of individual documents in a standardised indexing language is, of course, an act of classification. But also, underlying the indexing language, even in the structure of cross-references in an alphabetical index and in agreement upon terminology, is an intellectual schema.

(a) In-house study

Consistency of treatment depends upon the use of a single schema. Social science, however, offers a number of alternative and overlapping schemas. To the extent that information processing is concerned to group like with like, there would seem to be two tenable alternatives: (i) a broad scheme conceptually sophisticated enough to accommodate the frameworks of the different disciplines without distortion; (ii) separate discipline schemes (this is not of course a return to any notion of 'subject matter' boundaries).

(i) A general classification scheme

The Classification Research Group (CRG) has examined both integrative levels theory and systems theory as a possible solution of the former type. It came to the conclusion that the former, whilst adequate as an explanation of natural phenomena, does not allow for the complexity required for the purposes of specialist documentation. It is seen, however, to provide a principle for ordering different entities, and systems theory is seen to provide principles for ordering the component parts of the individual document description[1].

The CRG has a wealth of collective experience in the field of classification though it has, with the exception of the work of Barbara Kyle, which was so tragically cut short, devoted less atten-

---

1. Foskett, D.J. Classification for a general index language. London, Library Association, 1970. (Library Association Research Publications, No. 2.)

tion to the social sciences than to other fields. Our work on our specific field is only just beginning. Clearly if there are general principles we would wish to adopt them.

Preliminary study of the application of principles established by the CRG supports Foskett's[1] view that work remains to be done on 'intellectual entities'. From the point of view of handling the sociological literature, Austin's paper 'The system developed during the period of the NATO grant' raises a number of theoretical questions[2].

For example, it is envisaged that two main thesauri of terms will be established. As indicated earlier, relationships between concepts are conveyed by means of position or relational operator in the individual document description. The sociologist, however, often studies patterns of relationships per se[3], an approach which, since relationships are merely indicated as different types of links, would seem not to fit within the present pattern of the scheme.

Types of concepts other than relations are defined as 'entities' and 'attributes'. In the empirical world it is relatively simple to draw such a distinction. In attempting thus to categorise analytical constructs such as the sociologist uses (that is to say

---

1. Foskett, D.J. op. cit.

2. British National Bibliography Application by the British National Bibliography for a grant to develop a general classification for the control and retrieval of information: Appendix 1. London, BNB, 196?.

3. Cf. The well-known picture of 'the invisible man'; once he has been perceived, the rest of the design is seen simply as space around this picture. Similarly, entities and attributes may be merely 'social space' in relation to patterns of social interaction.

hypothetical categories created 'by abstracting related characteristics from observed phenomena or possibly without empirical reference'[1]), one is likely to run into epistemological problems.

With regard to 'artificial entities', as distinct from 'living entities', which are to be ordered in terms of purpose (needs or drives), this appears to accord ill, for instance, with the sociological distinction between latent and manifest function (latent functions are consequences of action which are neither intended nor even perhaps recognised by the actors). 'Drive' is, of course, a psychological concept; 'the sociological perspective points towards the ways in which the actor arrived at these motives, desires and intentions and at the pressures which direct and constrain action'[2].

Reference is made to the individual species and culture 'planes' established for each organism. It appears to be intended that each organism possessing a given purpose is named, the drives associated with each plane then being stated in turn before the next organism is named. This has a superficial resemblance to the concept of 'unit of analysis' but reference to arrangement by 'organism possessing the purpose' indicates as in the previous paragraph a model which does not accord with the sociological perspective.

Attributes are divided into two categories: properties and activities. This is another distinction which is hard to make in relation to sociological concepts, as is the intended ordering of

---

1. Gould, J. and Kolb, W.L. op. cit.

2. Swift, D.F. op. cit.

the latter by stages of change. The sociological model is rather one of continuous interaction.

Austin goes on to consider techniques for statement of compound subjects. This part of the scheme has been embodied in the PRECIS system which was discussed earlier (see p. 3.58), and similar problems of application to sociological literature described.

Since the scheme is concerned with the intellectual organisation of knowledge and not merely with the convenient arrangement of documents for retrieval, it would seem appropriate to consider how far its conceptual basis reflects the conceptual approach of the specialist, in our case the sociologist. A bad match is liable to mean distortion of the content of the literature and thus poor retrieval performance at the level at which the service is aimed, even though as a mechanism for document retrieval it may equal the performance of systems based on other types of algorithm.

The principle of rotation ensures that each element of a subject may be brought to the lead position so that slight distortion of the subject may only rarely mean that a document is overlooked as a result of citation order of elements. If, however, some important element (e.g. in the case of relationships) is suppressed because of the mode of formulating an entry or if, in a classified array of documents for a subject oriented scan (as compared with the use of the index for a more specific approach), the citation order of subjects is unhelpful or inappropriate, this is more serious.

In general our impression is that the scheme is essentially descriptive of the natural universe and based upon a causal model, and as such would not tend to accord an appropriate treatment to sociological material. In so far as this is a fair assessment, it represents also a limited application of systems theory, on which

it is based, as theory. Systems theory per se is not incompatible with behavioural science frameworks though, as Buckley[1], for instance, points out, it is 'far from that of a unified theory' and nothing approaching a 'dramatic synthesis'.

The CRG's work on the development of a general classification scheme is as yet incomplete. For the interim we decided that it would not be inappropriate to add one more to the many special schemes. It was felt that there would be in any case a need to study the problems of our material and ways of resolving them before considering the relationships of our material to a broader context.

(ii) An SEA classification scheme

In view of the desirability of compatibility, possibly an eventual even closer association with other services to education, it was decided to attempt to develop additional facets for D.J. Foskett's London Education Classification[2] (LEC) and to seek the views of the group upon the effectiveness of such a scheme for use in ordering for retrieval the contents of the literature of the sociology of education. It was accepted, for the kinds of reasons mentioned by D.J. Foskett [3], that hierarchical schemes are not appropriate for subject fields like ours, and that a faceted scheme might well be acceptable for our purposes.

---

1. Buckley, L. op. cit.

2. Foskett, D.J. 'The London education classification.' Education Libraries Bulletin, Supplement 6, University of London, Institute of Education, 1963.

3. Foskett, D.J. op. cit.

In considering the framework of a scheme for the sociology of education, however, one finds the general problems of the classification of social science literature mirrored in small.

For reasons discussed earlier (see p.3.42) the empirical world (administrative framework of education) scheme of LEC had to be accommodated within a theoretical framework. Sociology has, however, no single theoretical model; there are a number, each focussing upon some part of the total pattern of social interaction. Inkeles[1] suggests that it is only by focussing upon certain aspects of the pattern (selective perception) that it is possible to begin to understand the mechanisms that operate. The sociologist is heavily dependent upon models for the purposes of theory building and, since validation by experiment is not easy when it is concerned with human beings, models tend to become rallying grounds for competing schools of sociology. Smelser[2] predicts that these overlapping frameworks will 'give way to more general characterizations of structures and processes' and 'will probably evolve to fewer, more analytic areas'.

Greater theoretical sophistication of this kind can only be a gradual process, as the discipline develops. It would clearly be an impertinence for an information service to attempt to impose a structure without some consensus from specialists, since this would be prematurely to impose a 'solution' upon the academic debate. It

---

1. Inkeles, Alex What is sociology? An introduction to the discipline and profession. Englewood Cliffs, N.J. Prentice-Hall, 1964. (Foundations of modern sociology series.)

2. Smelser, N.J. op. cit.

would seem that if bibliographical classification is to be anything more than a mere finding device it must, until such time as the discipline arrives at the synthesis which Smelser predicts, find some neutral ground which will not involve the presentation of any material within an alien framework, thus distorting its meaning.

A set of sociological facets was established based on a schema of Inkeles[1]. This scheme was selected, after consultation with sociologists, partly because it has been used from the start by SEA as its sociological study areas index, partly also because, as Inkeles points out, its broad conceptual areas represent neutral ground for sociologists, whatever their individual conceptual frameworks, and are not likely to be a source of intellectual disagreement. An independent rough sorting of sociological and 'social' concepts occurring in the abstracts in volume 4 of SEA produced a rather similar set of categories, and in the light of this exercise the Inkeles scheme was slightly extended to take account in particular of writing on cultural and normative patterns:

Social structure
- Analytical constructs
- Normative principles

Social units
Social relationships
Social processes
Human characteristics (individual and social)
Social institutions

Serious difficulties were encountered, however, with some concepts, e.g. bureaucracy, family, which might be argued to 'belong'

---

1. Inkeles, Alex op. cit.

to more than one category, and agreement upon the scope of some categories was less than complete. Matters were complicated when our categories were related to those of the LEC. It was found that our categories tended to cut across LEC. For example, educational processes such as selection, streaming, are, as educational processes, necessarily social processes. Concepts such as 'status', which the sociologist views as a position in social structure were subsumed under 'teaching profession', which the sociologist tends to view as a social unit. There is too possible confusion in the different use of terminology (obvious examples are 'organisations', 'integration').

It was found that the simple addition of sociological facets to LEC was not viable and the scheme was recast[1] (copies available on request) subsuming education under the heading of social institutions, though because of our interests it received more detail than other members of this category. Logically an 'administrative structure' facet, representing the material extensions of education, its establishments, its personnel etc., should also have been included. In practice it was considered too difficult to distinguish between the conceptualisation of education as an

---

1. The construction of an alternative scheme had another advantage in that it allowed of complete renotation. It would otherwise have been necessary to incorporate our facets with a notation deviating from that of LEC (three letter pronounceable symbols), as they could not otherwise have been included en bloc.

institution and that of its 'material extensions', and these two were therefore merged.

The problems of citation order of facets, and of citation order within facets, has already been discussed. For the purpose of the exercise we ordered the facets from purely analytical constructs to the institutional facet which has the strongest material associations (though no greater or lesser connection with 'reality'). We also followed the principle of preferred order in citing elements of compound subjects. But we have come to the conclusion that the notion of preferred order is not viable in classification of our material. The social situations which our material describes are situations of interaction. Depending on the focus of interest, the hypothesis to be tested etc., one variable or another may be selected from a number of variables for particular study. There is no inherent sequence which is appropriate and to impose one in stating compound subjects is liable to lead to inappropriate groupings of documents.

(b) Seminar discussion of classification

There were conflicting views as to the desirability of classification. In general, a conceptually satisfactory scheme was seen by the group to be not only impossible at this point in time, but there was a feeling that an attempt to establish such a scheme, or at least to lay the broad foundations, would be premature, even to be deplored as a constricting factor on the development of sociological thinking. This applied not merely to a formal scheme of classification but to any classificatory basis in alphabetical subject indexing.

A 'pragmatic' attempt at organisation for retrieval (by study areas rather than by conceptual areas) prepared by one of the group, was examined, but was seen for practical purposes (members quoted examples to show why they personally would not find it helpful) to be of value to a very limited number of people as well as intellectually unacceptable. It seemed likely that any alternative pragmatic scheme would be open to the same kinds of objection.

It emerged in discussion with the group that, whilst many saw SEA essentially as supporting the sociological study of education, others would regard it mainly as a service to education qua education. In the latter view sociological (or other social science work) is felt to be most helpfully divorced from its own theoretical frameworks and related pragmatically[1] to an alternative educational framework. The former maintain that it is essential that the material be viewed within a theoretical framework, and that the relating together of documents within such a framework is a matter for the individual since it involves an evaluation, a relation to the individual's own conceptual framework.

---

1. The pragmatic view should not be confused with the 'practitioner' view. As the term is used in this discussion, the pragmatist is essentially concerned with the academic study of education. The views of those who need practical guidance are considered separately (see p. 3.125).

It is difficult to accept that a subject-oriented scan such as would be provided by a classified arrangement of abstracts would not be generally helpful and might indeed be undesirable. One is inclined to argue that, even if it is impossible to please all groups of users, one should decide, arbitrarily if need be, upon one system of arrangement, and may assume that provided this is maintained consistently all will be able to use it for browsing in areas of interest, even though some admittedly more conveniently than others.

The problem is, however, that already outlined in discussion of use of indexes . (see p. 3.31). If by 'use' we mean identifying material known to be of interest, this is a fair assumption. If by 'use' we mean serendipity[1] on a massive scale and deliberately sought, then the argument does not hold. And SEA feels a responsibility towards the latter approach, particularly if the abstracts are accompanied by a retrieval-oriented alphabetical index[2].

Those who for some reason (e.g. specialists outside their specialism) are prepared to delegate the intellectual effort involved

---

1. Infross data suggest that 30-40% of both educationalists and sociologists often find, by accident, items directly, marginally or indirectly important to a given piece of research and a further 50-60% do so occasionally. It occurs even more often that they happen upon material within their general range of research interests.
2. It is obvious that some of our seminar members have less than complete faith either in classification or in subject indexes, since several asked for a personal search service additional to the published service, for which, within reason, they would be prepared to pay.

in the latter approach to a specialist service such as SEA would be better served by different and selective presentations. The particular viewpoint imposed can then be clearly indicated and allowance made for it where necessary by the user.

For the main service, only completely random access would seem to be helpful to those who insist upon total scanning. (but we are rapidly reaching the point where this is no longer feasible) or to those who can spare the time to integrate new materials into their own files organised in accord with their individual conceptual framework (but hardly any of those we have contacted maintain such files).

A possible compromise is arrangement by journal or, for books, by publisher. This could not offend on any discipline grounds; indeed it would offer an opportunity to browse the contents of the abstracts as actual journals at least are scanned in the library by academics. Knowledge of individual journals and publishers would to a point enable planned browsing, yet at the same time promote serendipity. It would also enable journals received or scanned regularly to be bypassed and thus reduce the amount of material to be scanned.

It is intended to explore further the acceptability of this suggestion. At the same time a working party of sociologists is being formed, the main function of which is to consider problems of terminology. This activity will inevitably lead into broader questions of intellectual organisation, so that the notion of classification has been rather deferred for further consideration than abandoned. It is considered, however, that it will be a considerable time before anything which information scientists would term 'a classification' emerges.

(3) Form of abstract

(a) In-house study

The kinds of material in which sociologists of education are interested are varied and it was found that SEA tends, though not consistently, to accord different kinds of treatment to different kinds of material. The work reported in Chapter 1 suggested that individual abstractors, in the absence of formal guidelines, develop their own conventions. Abstractors do not, however, always categorise material in the same way. As a basis for standardisation of SEA practice, agreed categorisations of documents are essential. These may then be associated with standard patterns of abstracts, with flexibility where necessary.

(b) Seminar assessment of different types of abstract

Three of the categorisations used in the analysis of SEA volume 4 were listed for the group, and members were asked to indicate which of a series of types of abstract[1] they would consider most appropriate to each category of material. The types of abstracts were described as follows:

(1) Bibliographical details.
(2) Brief statement of general area, problem, nature etc. of work.
(3) Brief statement of general aims, approach, method, argument etc.
(4) Detailed statement of specific topics or aspects of topic considered.
(5) Detailed statement of actual statements, arguments, findings, conclusions etc.

---

1. One document was abstracted in a number of ways to illustrate and enable detailed comparison of the different types (these examples available on request).

(6) These types of description may be combined in various ways, e.g. (3)+(4).
(7) Any detailed statement of topics discussed or of arguments may be set within the structure of the original. The level of detail may also be varied.
(8) (5) above could be modified in the same kind of way (part of the abstract only was given for illustration), it may or may not be preceded by a general statement of theme or contents.
(9) The indication of structure (in this case by chapter) and level of detail in the abstract need not necessarily be uniform in relation to the original.
(10) Alternative methods of structuring an abstract, again not necessarily preserving the balance of the original, would be an alternative presentation of (4) including such sub-headings as: problem; discussion; conclusions.
(11) Similarly (5) could be modified in the same way but, in view of the greater length, with more detailed sub-headings.

(These alternatives take account of the following features of abstracts: level of abstraction (information about or summary of original); degree of reduction (general characterisation or more detailed breakdown of contents); structure (organised e.g. under headings or continuous prose, following original or not).)

Members were asked to consider their preferred form of abstracts in relation to material from different subject areas, some more peripheral than others. Form of original and approach were similarly considered.

A number of the group found it impossible to make distinctions between material from different broad subject areas, taking the view that, if an item is worth including, it is worth 'treating properly'. (No preferences were clear from the responses of the rest.) Comments related this view to fear of evaluation on the part of the service and the danger that difference in treatment would be seen to reflect a judgment on degree of relevance, rather than kind of relevance. In this case any attempt to make distinctions, even for reasons of expediency, between 'core' and peripheral material,

once the preliminary evaluation of decision to include has been made, is unacceptable.

With regard to form of original, abstracts merely stating the topics dealt with (the contents list approach) were on the whole preferred, except in the case of scholarly monographs where a précis of the writer's statements or arguments is considered more appropriate (see Table 3.16 on p.3.109). Unstructured abstracts are favoured except in the case of text-books, general background, and proposals for action; official reports and progress reports too are often considered to be best treated by abstracts clearly organised under headings (see Table 3.16 on p.3.109).

In relation to 'approach', conceptual/theoretical writing was felt in the main to require a précis, descriptive writing to require a contents list type of abstract; there were no clear preferences as to other categories (see Table 3.18 on p.3.111).

Structured abstracts were quite strongly preferred for most of these categories, although some found such patterns artificial, 'intensely irritating', a cursive abstract enabling a more immediate grasp of essential content. Abstracts following the structure of the original were preferred to any restructuring (see Table 3.18 on p.3.111)

It is understood that these views represent very broad generalisations: some members felt that length of abstract would reflect length of original and selected type of abstract according to length, whereas this is, of course, entirely relative, and does not affect differences between type of abstract as we defined them. Several, for these reasons, gave alternatives, and this explains the fact that the number of responses exceeds number of respondents.

TABLE 3.15

PREFERRED TYPE OF ABSTRACT ACCORDING TO FORM OF ORIGINAL

Form of original	Type of abstract 1	2	3	4	5	6	7	8	9	10	11
Readings	-	2	1	6	1	1	4	-	2	-	1
Conference papers	-	1	2	4	-	3	1	-	2	1	1
Reference books	1	1	3	6	1	-	2	-	2	-	-
Official reports of official bodies	-	1	-	3	1	3	3	-	1	2	1
Textbooks	1	1	-	5	-	1	6	1	1	1	-
'How to do it' guides	1	4	3	5	-	2	2	1	1	1	1
General background	-	-	3	4	1	-	4	3	3	-	-
Reviews of the literature	-	2	4	3	-	2	3	1	-	-	-
Bibliographies	2	4	2	4	-	1	2	-	1	1	-
Scholarly monographs	-	-	2	2	3	3	2	2	5	-	-
Progress reports, trends	-	1	1	3	-	3	6	-	2	-	-
Critiques	1	-	2	3	2	3	1	1	3	1	-
Proposals for action	-	1	3	3	-	2	3	1	3	3	-
Totals	6	18	26	51	9	24	39	10	26	10	4

TABLE 3.16

SUMMARY OF TABLE 3.15

Form of original	Type of abstract					
	'Contents list' approach (Types 2,4,7,10)	'PRÉCIS' approach (Types 3,5,8,11)	Combination of approaches (T pe 6.Type 9)		Unstructured (Types 2-6)	Struct red (Types 7-11)
Readings	12	3	1	2	11	7
Conference papers	7	3	3	2	10	5
Reference books	9	4	-	2	12	4
Official reports of official bodies	9	2	3	1	8	7
Textbooks	13	1	1	1	8	9
'How to do it' guides	12	5	2	1	15	6
General background	8	7	-	3	8	10
Reviews of the literature	8	5	2	-	11	4
Bibliographies	11	2	1	1	13	4
Scholarly monographs	4	7	3	5	10	4
Progress reports, trends	10	1	3	2	8	8
Critiques	5	5	3	3	11	6
Proposals for action	10	4	2	3	9	10
Totals	118	49	24	26	134	84

TABLE 3. 17

PREFERRED TYPE OF ABSTRACT ACCORDING TO APPROACH OF ORIGINAL

Approach of original	Type of abstract										
	1	2	3	4	5	6	7	8	9	10	11
Conceptual/theoretical	-	-	3	1	4	2	4	5	5	1	-
Empirical	-	-	-	2	4	2	6	3	2	2	4
Factual/descriptive	-	-	-	7	2	2	6	1	5	2	2
Analytical/discursive	-	-	-	2	3	2	4	5	6	1	3
Polemical	-	1	2	2	4	4	3	3	4	1	0
Historical/philosophical	-	-	-	2	1	1	6	4	6	0	2
Totals	-	1	5	16	18	13	29	21	28	7	11

TABLE 3.18

SUMMARY OF TABLE 3.17

Approach of original	Type of abstract					
	'Contents list' approach (Types 2,4,7,10)	'PRÉCIS' approach (Types 3,5,8,11)	Combination of approaches (Type 6. Type 9)		Unstructured (Types 2-6)	Structured (Types 7-11)
Conceptual/theoretical	6	12	2	5	10	15
Empirical	10	11	2	2	8	17
Factual/descriptive	15	5	2	5	11	16
Analytical/discursive	7	11	2	6	7	19
Polemical	7	9	4	4	13	11
Historical/philosophical	8	7	1	6	4	18
Totals	53	55	13	28	53	96

In discussion, the main criterion referred to was rapid readability. For many the abstract should give just sufficient information to enable a user to decide whether to read the original. However the abstract may sometimes serve as a substitute. Also it may serve an informative function of a special kind (e.g. 'would need detailed treatment - especially for tutors who have limited theoretical background in sociology'; 'not all lecturers are able to value the worth of a book on one reading and abstracting services provide the tutor with guidance'), but evaluation may be used in several different senses (cf. 'evaluatory comment e.g. "comprehensive", "limited", "suitable for"'). At the opposite extreme was, for example, the respondent who preferred 'brief abstracts because I always find longer ones misleading. ... I was shocked at the assumption [emerging from discussion] that the abstracts were used as the final and only reading .... This strikes me as a quick road to stagnation'.

Abstract type no. 9 attracted a considerable amount of comment. As a matter of policy, SEA does not favour slanted (interpretative) abstracts. Our analysis of SEA volume 4 showed, however, that a number of abstractors employ the devices of 'highlighting' or 'telescoping' to focus the attention of the user on certain parts of a document at the expense of others. This seems unavoidable in the case of works included in SEA on grounds of partial or indirect relevance. Type 9 illustrated this technique. It found favour with a few but the majority view was that 'directive' abstracts were not desirable and that the balance of the original should be preserved. Also, even though (at c.250 words) it was only of medium

SEA length, it was criticised on grounds of excessive length.

In view of the stress laid by the group on the last point, a further exercise is of especial interest. The group were asked to consider the nature of the questions which an abstract should answer about the document it represents. The thinking behind this was that if decisions (e.g. whether to obtain) about a document are to be made effectively on the basis of rapid scanning of an abstract, the abstract should contain the same information of which consciously or unconsciously the user would take note if he had the actual document in his hands. There is a fairly general agreement as to the information to be given in the case of reports of empirical research[1], which an abstract may reflect; are there similar patterns, or could such patterns be agreed, for other types of material? Clearly, the briefer the abstract, the more important it becomes to recognise and to include the essential clues for decision-making.

In order to study the essential content of an abstract, eleven well-known works relevant to the sociology of education were selected (see list overleaf). It was considered that they would all be familiar to each member of the group and the group indicated that this assumption was correct. Members were provided with a highly detailed abstract of each of the works drawn from sources other than SEA, or, if none could be traced, an abstract was specially prepared. They were asked to indicate in each case

---

1. Knop, Edward 'Suggestions to aid the student in systematic interpretation and analysis of empirical sociological journal presentations.' American Sociologist, 1967, 2(2), 90-92.

WORKS OF WHICH ABSTRACTS WERE USED FOR SEA SEMINAR

A - Nature of work - empirical/non-empirical

A1. Lacey, C. 'Some sociological concomitants of academic streaming in a grammar school.' British Journal of Sociology, 1966, 17(3), 245-262.

A2. Campbell, Flann 'Latin and the elite tradition in education.' British Journal of Sociology, 1968, 19(3), 308-325.

A3. Sugarman, B.N. 'Social class and values as related to achievement and conduct in school.' Sociological Review, 1966, 14(3), 287-302.

A4. Harrison, F.I. 'Relationship between home background, school success, and adolescent attitudes.' Merrill-Palmer Quarterly, 1968, 14(4), 331-344.

B - Type of relevance - different kinds of 'indirect' relevance

B1. Krauss, Irving 'Some perspectives on social stratification and social class.' Sociological Review, 1967, 15(2), 129-140.

B2. Carter, M.P. 'Report on a survey of sociological research in Britain.' Sociological Review, 1968, 16(1), 5-40.

B3. Carey, Alex 'The Hawthorne studies: a radical criticism.' American Sociological Review, 1967, 32(3), 403-416.

C - Books - special problems, particular forms

C1. Hargreaves, D.H. Social relations in a secondary school. New York, NY, Humanities Press, Inc., 1967, 234 pp.

C2. Jackson, B. and Marsden, D. Education and the working class. New York, NY, Monthly Review Press, 1962, 277 pp.

C3. Banks, Olive The sociology of education. London, Batsford, 1968, 224 pp.

C4. Hansen, D.A. and Gerstl, J.E. eds. On education - sociological perspectives. New York, NY, John Wiley & Sons, Inc., 1967, 300 pp.

which points they would delete as superfluous, where they would summarise, and whether important points had been omitted. The object was to discover whether there was a consensus as to the desirable content of the abstract, and to compare with SEA abstracts for the same documents. The documents were divided into groups according to: nature of work (empirical/non-empirical); type of relevance (indirect, contrasting with first group); form (books, cf. journal articles in previous groups). Responses were analysed sentance by sentance or occasionally, where units of thought did not coincide, idea by idea (tables available on request).

Empirical work (A1, A3) is, on the whole, felt to require a simple statement of problem, method and/or conceptual basis and findings. One or two would like only a very brief indication of method and findings. Other points which would be expected to give higher discrimination in judging relevance (e.g. definition of concepts) were not considered essential, nor information of the type one might term 'circumdescription' (cf. p.2.37). The relevant SEA abstracts contained more information than the group regarded as necessary.

It was considered that in the case of items reporting research with a very formal research design, a graphic or tabular rather than a prose abstract might be more appropriate, on the grounds that the type of description involved might thus be more readily assimilated by the user. An 'abstract' of this type (A4) did not, however, find favour with the group. Comments included 'disliked', 'didn't understand', 'unhelpful except as an addition'. One or two felt that such an abstract was an appropriate reflection

of the original, but felt that only a specialised researcher could use either the diagrams or statistics without further explanation. Even so it was objected that, in the absence of conventions, the user would waste rather than save time in grasping the essential content. Additionally, despite a move to more 'scientific' sociology, many of the group seemed to feel that they were more literate than numerate and were thus biassed on first sight of this abstract.

A desire for brevity was very evident in the case of non-empirical work. However, members views were somewhat coloured by the fact that the subject of one example used ('Latin and the elite tradition in education', A2) was felt to be 'of limited interest in the wide range of the sociology of education'. The group recognised that this was to fall into the trap of evaluation. It was interesting also that despite disapproval of 'directive' abstracts several members commented that the sociological significance of the work did not come out clearly enough. The SEA abstract of the document came quite close to what the group considered appropriate.

A further theoretical work (B1) was accepted almost without alteration. It differed from the former in that whilst both brought out the main points in the writer's argument, the latter merely stated, the former stated and elaborated upon them. Even so, however, some would have reduced the presentation of the argument still further; one member commented that he found the abstract verbose. The SEA abstract equally would be longer than the group would like. It would seem that, unlike the former case, the feeling is not that any of the given steps in the argument are superfluous but rather there is a feeling, on grounds of style, that

the same points could be made more concisely. Despite the fact that this is a work of indirect relevance (it is a sociological work, having nothing to do with education), all points are felt to require equal weight.

A further abstract (B2) related to a survey of part indirect/part direct relevance. There was little agreement amongst the group. Only one sentance (that broadly describing the subject of the enquiry) was left unamended by all members. Some would summarise the account of method, others that of findings. Responses are, however, similar to those for empirical work of direct relevance. SEA did not abstract this work so no comparison is possible.

Last in this set was an abstract of substitutional relevance (B3), a longer than average but well-balanced abstract. Again the group would summarise a substantial part of the abstract (all exoept first and last sentances would be amended) but only one or two would omit any part of the abstract. SEA did not abstract this work.

The remaining abstracts related to books. Responses on abstracts of two empirical studies (C1, C2) indicated, as with journal articles, that greater condensation would be preferred by some but that little would be omitted. Abstracts of a textbook (C3) and a 'reader' (C4) received a similar judgment. All these abstracts dealt with contents chapter by chapter. This was felt by many to be helpful in the case of a text-book, and inevitable in the case of the reader. It appears to be less helpful in the case of the other studies, and may be undesirable: 'The preservation of the

formal structure of the book makes it difficult to see what the book is about! If I didn't have the title I wouldn't have recognised the book.' Journal abstracts were not structured and there was no request that subheadings be used (probably because the brevity required made this device unnecessary). SEA abstracted only C1 and C4. The C1 abstract tends to cover the required ground more concisely. The treatment of C4 is rather different in SEA, some papers receiving individual abstracts.

Bibliographical information alone is clearly often inadequate for recognition of relevance. In our 'titles' study (see p.2.55), 10% of titles were felt to give an accurate description of contents, 37% a reasonably accurate one, 28% partially accurate, 23% not very or not at all accurate[1]. Seminar members seem to support this view.

There appears to be an irreducible minimum of which an abstract should consist, which can be clearly stated in the case of empirical work (problem, method, findings); this holds for both books and journals. In the case of theoretical work there is a similar irreducible minimum which cannot be so specified since it derives from the logic of the argument (i.e. the 'main points'). Certain types of material, because of their form (e.g. textbooks, readers), do require special kinds of treatment. Descriptive material was not included in the latter exercise but there was a clear consensus earlier that a statement of topic is all that is necessary.

---

1. 81% of Infross respondents considered abstracts more valuable than 'titles' only.

This essential information, however, must be reliable, and must avoid any distortion or interpretation. Yet a list of headings is not usually helpful. Author abstracts would appear to be the answer to this, but authors do not always provide balanced[1] or succinct abstracts. In any case, author abstracts do not by any means always accompany an article or book, and the delay in obtaining them where this is the case is likely to be detrimental to the service.

Another point which came out particularly clearly at the seminar, and which relates to both content and style of abstract, is that abstracts could often be reduced in length without information loss, either by eliminating 'circumdescription' or by greater conciseness in stating ideas. The latter question will be one on which our working party on terminology will be asked to advise.

The question of elimination of background information is a very difficult one. For users not familiar with a given specialised area it may be essential to an appreciation of the subject of a document. It is suggested that multi-level abstracts prepared by specialists are the most acceptable solution. These would be abstracts in which a brief description for the specialist is accompanied, where appropriate, by a more extended and non-technical description for those without detailed knowledge of the subject with which the author deals.

---

1. Cf. Carey, Alex 'The Hawthorne Studies: a radical criticism.' American Sociological Review, 1967, 32(3), 403-416.

From the point of view of cooperation, we consider it likely that whilst one specialist service might well find it desirable to rely on another for notice of material outside the range of its coverage but within its central interest range, it might do better to prepare its own abstracts of such material rather than to obtain abstracts on an exchange basis. However, abstracts of material of more marginal interest to one service might well be borrowed from another to which it is of central interest. For this purpose the more extended non-technical section of our suggested abstract type might be appropriate.

Draft guidelines have been prepared, embodying these various points, together with others, and circulated to all our abstractors for comment.

SEA's future policy

The suggestions in the previous sections represent, it is hoped, a reasonable working hypothesis as to the kinds of developments, both short and longer term, at which SEA should aim. They are intended to represent also a reasonable compromise between the 'best' view of experts and the majority view[1]. This is in accord

---

1. It will be recalled that the 'best' view is that expressed by members of the seminar, known to be concerned about bibliographical problems and speaking from the point of view of the best interests of the discipline. This group was above-average in knowledge of bibliographical services compared with the other sociologists of education we questionnaired (the 'majority'), though limited in their use of information services by any general standards.

with SEA's ethos, that SEA is a service for specialists though feeling an obligation to meet the needs of a wider clientele, with the reservation that this should not be to the serious detriment of the service as a service for specialists.

The ideal service is for most the conventional type of abstracting service of which Psychological Abstracts, Sociological Abstracts are examples. Yet in principle such services, from a discipline standpoint, present serious drawbacks for the academic. There is, however, some disagreement as to the nature of the specialist approach to the literature of the sociology of education for which the service should cater. This has an important bearing on organisation for retrieval. On the one hand there is the theoretical approach of the sociologist. On the other hand, there is a substantial number of educationalists who, whilst having a pragmatic approach are, nevertheless, in the general context of education studies, specialists (in another sense) in the sociology of education. The main difference between the two approaches lies in the extent to which intellectual effort in searching the literature can be entrusted to an information service.

Seminar members suggested that this difference was a reflection of the longstanding dispute between those who see sociology as 'what sociologists do' and those who see sociology as a conceptual area. Post-seminar exchange of views has suggested alternatively that there is on the one hand an association between the pragmatic standpoint and the study of sociology of education as education, and on the other relates the theoretical standpoint to the study of education as sociology. Even our 'pragmatists', as sociologists, would be unlikely to deny that even at the most elementary level there must be an informed (sociological) consumer approach, even if

the end product is the understanding of educational processes rather than the development of sociological theories.

Their point seems to be rather one of expediency in exploiting the literature (e.g. in use with students); an informed consumer approach is created at the time of use by specialist guidance external to SEA.

But it must also be accepted that the literature of the sociology of education is of interest to many without a sociological background[1], and to academic educationalists other than sociologists of education. In so far as the sociological perspective is lacking in the user, yet essential to an adequate understanding of the material, this must necessarily affect content of abstract and means of access (e.g. index entry points) required. There is a problem similar to this in catering for practising educationalists such as school teachers and administrators. Both these groups are at a loss, if they lack a sociological background, in assessing the implications of the work of sociologists of education for the practical educational situation.

The main types of approaches to the literature may be analysed as follows:

---

1. 30% of the College of Education group were non-sociologists.

FIGURE 3.8

CLASSIFICATION OF APPROACHES TO THE LITERATURE OF THE SOCIOLOGY OF EDUCATION

Type of information sought	Academic standpoint: Theoretical	Academic standpoint: Pragmatic
Sociological	1	2
Non-sociological	3	4

Group 1 = 'Theoretical' sociologists

Group 2 = 'Pragmatic' sociologists (the seeming contradiction in terms is explained on p.3.102)

Group 3 = Academic educationalists other than sociologists of education

Group 4 = Practitioners such as school teachers, educational administrators

Fragmentation of services is clearly, from all points of view, to be avoided as far as possible. At the same time one would not wish, merely for the sake of organisational neatness, even for the sake of economy, to overlook real differences in approach to the literature nor their implications for use of bibliographical services.

Groups 1 to 3 are all engaged in the academic study of education. Our suggestions are intended, with due regard to the problems of the sociological literature, to enable their access to this literature. But it will probably be generally agreed that practitioners (Group 4) are not on the whole interested in the literature per se; their need is basically for

data for decision-making of some kind[1]. Their academic interests lie largely elsewhere (e.g. the mathematics teacher in mathematics) and for these interests other discipline services can serve them better. For the technical/educational aspects of their work, a 'tertiary' publication, in which preselected works are presented in predigested form, is probably more appropriate than a secondary publication such as an abstracting service. It is proposed in the later stages of our work to experiment, in a selected group, with such a publication.

There was until a short while ago a general tendency to assume, again in the interests of non-fragmentation, that there would be an eventual merging of specialist services such as SEA in some more comprehensive service to education. We have already discussed this point (see p.2.65). There appears now to be a leaning towards the view that a more appropriate form of service is a network of independent but cooperating specialist services, including a teaching/educational technology service.

In a recent report[2] the Council of Europe recommends a decentralised system (EUDISED) in which national centres are responsible for the literature of their own country, contributing

---

1. Brittain, M. Forthcoming review of literature on user studies in the social sciences.

2. Council of Europe, European documentation and information system for education, Vol. I. Strasbourg, Council of Europe Documentation Centre for Documentation in Europe, 1969.

to a decentralised computer-based 'shared European and international system'. The effectiveness of the system is seen to depend upon 'rules commonly adopted and observed'. A network of specialised centres with national coordinating centres, language area coordination and 'chains' of specialist cooperation is outlined. A 3-phase development plan is suggested. Since the report has not as yet been widely circulated, a brief resumé of its recommendations may be helpful.

The working party notes three major trends: 'a further diversification of subject fields, and increase in interdisciplinary fields, and an increase in the need for problem-oriented information'. It seems that in general organisation would be around 'specialist subject fields', rather on the lines of the ERIC clearing houses in the United States[1].

A common indexing and classification system, flexible enough to accommodate and allow for development in sets of descriptors for 'specialist' areas and the involvement of subject specialists are seen as essential.

Cost-benefit arguments are advanced, with particular reference to planning, research and innovation. User studies would be expected to show that time spent in the collection of needed information is equivalent to a very substantial salary bill.

---

1. I.e. Apparently exhaustive collections in individual as distinct from broad areas of coverage e.g. Art education, Extra-curricular youth activities, rather than research in academic studies of education (e.g. sociology of education).

Since contributions from educational psychology, the sociology of education and from other fields are called for, educational documentation is to be viewed in the context of social science documentation as a whole. The system should benefit educational research and development, which are felt to require 'special selection criteria for data likely to be requested by researchers'.

Suggestions are made as to standard alternative types of analysis and depth of analysis ranging from purely bibliographic description to trend reports. Subject specialists should be involved in anything beyond the former. Abstracts are felt to be too costly unless author abstracts can be used as in science fields: trend reports in priority areas would be more valuable.

Standards also for format of records, media of exchange, as well as for selection criteria and analysis of documents should be introduced. In connection with the working party's belief in the need to develop a common system of classification and indexing, the Information retrieval thesaurus of educational terms[1] (which is associated with a faceted classification) is believed to merit testing for this purpose, also the recent edition of the ERIC thesaurus[2].

It is suggested that the EUDISED output will not be an immediate service to, for instance, teachers; individual countries would take the onus of 'repackaging' for dissemination to such groups. In such a system the 'specialised' centres would be concerned with the literature of a particular country and with

---

1. Barhydt, Gordon C. and Schmidt, Charles T. op. cit.

2. Educational Resources Information Center op. cit.

particular target groups. On this basis of division of labour, national, regional and international compilations are also envisaged, in the form of current awareness lists, lists and/or reports on selected innovations or surveys of the literature; enquiries may be dealt with and there should be experimentation with computer searching and SDI services, as well as with supply of full text of non-conventional material. Detailed plans for further development would be required.

In terms of general organisational framework, this is the kind of system in which services like SEA might make a useful contribution without too far losing sight of their specific aims vis à vis their target population for the sake of the necessarily more generalised aims of a large organisation. The vision of the system as a coordinated network of specialised agencies seems clearly appropriate in a field so diffuse and so diverse as education.

It is unarguable that coordination, integrated thesauri, a general classification etc. are in principle ultimately desirable for the purposes of communication and dissemination of information both within and across groups concerned in different ways with the study of education. However, in our work we have been brought hard up against the realisation that the 'specialist' principle offers merely organisational guidance in the problems of information processing and dissemination in education. It begs, even accentuates, the intellectual problems.

It is clear that the Council of Europe's report is a general policy statement and that studies of the literature and of use of the literature will also be taken into account before

before any recommendations are implemented. Our limited experience prompts the following reservation. There is a temptation to assume, because a specialist service such as SEA deals relatively exhaustively and in a scholarly way with a specific area of education and with its literature (together with relevant supporting material) that the service is a 'specialised' one, and as such serves the academic needs of a limited group of users. This is to overlook the differences, even in a limited group, between, say, educationalists with a general or special interest in the sociology of education, and sociologists with a general or special interest in education. Thinking of the different needs of these groups the term 'specialised' is seen in fact to be ambiguous.

This is more than a subject-centred/user-centred difference - it forces the selection of an ideal user group. A similar situation would seem likely to obtain in, say, psychology of education, perhaps even in a field such as that of comparative education[1]. To the extent that services in these fields are concerned to support sociological, psychological etc. study of the kind which will promote informed thinking about education, so selection criteria, treatment and intellectual organisation for retrieval for 'specialists' will differ considerably.

User needs and desirability of cooperation are amongst the most important factors influencing decisions as to the future development of SEA's service, but not the only factors. Economic,

---

1. It is possible that in the later stages of our work we may examine some of the differences in needs between such groups and sociologists of education.

personnel, administrative etc. factors must also necessarily determine policy. The various IR systems we have investigated too are still under development. Inevitably, therefore, options must be left open. However, work to date has enabled us to clarify the kinds of requirements to be satisfied and the kinds of options to be further explored in the remaining period of the project. It has served to stress the need for a partnership between subject specialists and information scientists - to attack the problems from the inside.